

# FM 21-75

DEPARTMENT OF THE ARMY FIELD MANUAL

---

## COMBAT TRAINING OF THE INDIVIDUAL SOLDIER AND PATROLLING



HEADQUARTERS, DEPARTMENT OF THE ARMY

JANUARY 1962

FIELD MANUAL }  
 No. 21-75 }

HEADQUARTERS,  
 DEPARTMENT OF THE ARMY  
 WASHINGTON 25, D.C., 19 January 1962

COMBAT TRAINING OF THE INDIVIDUAL SOLDIER  
 AND PATROLLING

PART	ONK.	COMBAT TRAINING OF THE INDIVIDUAL SOLDIER	Paragraphs	Page
CHAPTER	1.	GENERAL.....	1-3	3
	2.	COMBAT TRAINING		
	Section I.	General.....	4-8	3
	II.	Day and night combat.....	6-21	5
	III.	Day combat.....	22-23	33
	IV.	Night combat.....	24-29	36
	V.	Night vision.....	30-30	44
CHAPTER	3.	INDIVIDUAL PROTECTION		
	Section I.	Active measures.....	37, 38	49
	II.	Passive measures.....	39-43	52
	III.	Health and hygiene in combat.....	43-50	60
CHAPTER	4.	COMBAT INTELLIGENCE AND COUNTERINTELLIGENCE		
	Section I.	General.....	51, 52	77
	II.	Information.....	53-55	75
	III.	Production of combat intelligence.....	56	80
	IV.	Counterintelligence.....	57	81
	V.	Prisoners of war, documents, and material.....	53-61	81
CHAPTER	5.	MESSAGES AND MESSENGERS		
	Section I.	Messages.....	62, 63	84
	II.	Messengers.....	64-71	85
CHAPTER	6.	SURVIVAL ON THE NUCLEAR BATTLEFIELD.	72-81	90
	7.	SURVIVAL, EVASION, AND ESCAPE....	82-89	98
	8.	THE SNIPER AND INFRARED EQUIPMENT		
	Section I.	The sniper.....	90-97	102
	II.	Infrared equipment.....	98-105	104

\* This manual supersedes FM 21-75, 14 June 1957, including C I, 26 March 1959.

	Paragraphs	Page
CHAPTER 9. ANTIGUERRILLA OPERATIONS.....	105-100	112
<b>PART TWO. PATROLLING</b>		
CHAPTER 10. GENERAL CONSIDERATIONS		
Section I. General.....	110-114	117
II. Long-range patrols.....	116	118
III. Antiguerrilla operations.....	116	118
CHAPTER 11. PATROLLING RESPONSIBILITIES AND THEIR ACCOMPLISHMENT.	117-119	120
12. PATROL ORGANIZATION		
Section I. General.....	120, 121	125
II. General organization.....	122, 123	125
III. Special organization.....	124-125	125
CHAPTER 12. PLANNING AND PREPARING THE PATROL		
Section 1. General.....	127	131
II. Planning steps.....	128-137	131
CHAPTER 13. CONDUCT OF PATROLS.....	138-151	142
15. RECONNAISSANCE PATROLS.....	152-158	161
16. COMBAT PATROLS		
Section I. General.....	159-163	166
II. Raid patrols.....	164-165	167
III. Security patrols.....	167-170	170
IV. Contact patrols.....	171-173	171
V. Economy of force patrols.....	174, 175	172
VI. Ambush patrols.....	176-183	173
CHAPTER 14. MOTORIZED PATROLS.....	184-192	182
18. AIRMOBILE AND WATERBORNE PATROLS.	193-195	180
19. EMPLOYMENT OF SCOUT DOGS WITH PATROLS		
Section I. General.....	196-199	192
II. Using scout dogs with patrols.....	200-205	193
APPENDIX I. REFERENCES.....		197
II. EXERCISES FOR TRAINING IN NIGHT VISION.		199
III. PATROL TIPS.....		205
INDEX.....		211

PART ONE  
COMBAT TRAINING OF THE INDIVIDUAL SOLDIER  
CHAPTER 1  
GENERAL

---

1. Purpose and Scope

a. This part of the manual is your guide in the battlefield techniques of the individual Soldier. It explains how to perform your duties as a Soldier on the battlefield. It shows you how to protect yourself, how to preserve your strength and health, and how to see better at night. It teaches the techniques employed by the individual Soldier to defeat the enemy. Combat intelligence is explained because you are a very important agency for obtaining information about the enemy. Messages and message writing are explained and illustrated because you may have to prepare or copy a message or act as a messenger at any time. Battle indoctrination and battlefield survival are explained to better prepare you for combat.

b. Material presented herein is applicable to both nuclear and nonnuclear warfare.

c. Users of this manual are encouraged to submit recommended changes or comments to improve the manual. Comments should be keyed to the specific page, paragraph, and line of the text in which change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be forwarded direct to the United States Army Infantry School, Fort Benning, Ga.

2. Your Job as a Soldier

a. As an individual Soldier, you make significant contributions to Army activities. You are important as an individual. Our Army is made up of individuals, just like you, working together as a team. The American people invest time, money, and effort in you. As an American Soldier, you are a potential leader and your development is one of the Army's most vital missions.

b. The ultimate goal of the Army is success in battle. Your job is to help achieve this success. Regardless of your branch of service or job assignment, you may be called upon to fight. You may have to fight alone, but most of the time you will work with other Soldiers under a unit or team leader. You can prepare yourself by acquiring the knowledge and skills needed by the modern Soldier. Success in battle depends on teamwork of confident, well-trained Soldiers. Within each unit and within the Army as a whole, men are trained to operate as a team. By doing your job well, you help your team to win. By winning, you and the members of your team are protected and you help assure the success of the larger units.

### 3. Your Training as a Soldier

a. You must learn to operate effectively over all types of terrain, in all kinds of weather, by day, and by night. Your mission will often require you to move close to, within, or behind the enemy's area. To do this, you must be highly skilled in moving quietly and taking advantage of cover and concealment. You must know how to use a map and compass. You must know how to use your eyes so you will see what is around you, in both daylight and darkness. You must know how to report what you see promptly and accurately. You must develop patience, alertness, and determination.

b. Your training teaches you these things and makes you superior to the enemy. Experienced officers and noncommissioned officers explain and demonstrate what you must know; you are then required to perform until you are thoroughly skilled. You must work hard, learn well, and remember your training. The existence of our country depends on you!

## CHAPTER 2

### COMBAT TRAINING

---

#### Section I. GENERAL

#### 4. Purpose

The purpose of combat training is to mold you into a tough, self-reliant, fighting man, capable of performing effectively as a member of your team; to help you build and maintain the aggressive spirit—the will to close with and kill or capture the enemy.

#### 5. Phases of Combat Training

a. Combat is a continuous process—contact with the enemy must be constantly maintained. You must be able to fight by day or by night. Therefore, your training is in two general phases: training for *day combat* and training for *night combat*.

b. Some of your training prepares you to fight by day; some is especially applicable to night fighting; but most of your training applies equally to day or night combat.

c. You must consider *visibility* in deciding whether to apply day or night principles and techniques.

(1) For example:

(a) A bright moon or artificial illumination may provide better observation than a dark, overcast day.

(b) Heavy fog, rain, smoke, or dust may greatly reduce visibility, day or night.

(c) The period before sunrise is usually too dark for strictly day techniques, and the period before sunset is usually too light for strictly night techniques.

(2) Under such conditions, it may be necessary to vary your techniques, or to *combine* day and night principles and techniques.

#### Section II. DAY AND NIGHT COMBAT

#### 6. Cover and Concealment

a. *Cover* is protection from the fire of enemy weapons. It may



Figure 1. Natural protection from flat trajectory fire.

be natural or artificial. Natural cover (ravines, hollows, reverse slopes) and artificial cover (foxholes, trenches, walls) protect you from flat trajectory fires and partially protect you from high-angle fires and the effects of nuclear explosions (fig. 1).

b. *Concealment* is protection from enemy observation. It too, may be natural or artificial.

- (1) Natural concealment is provided by your surroundings and needs no change to be used; for example, bushes, grass, and shadows.
- (2) Artificial concealment is made from materials such as burlap or nets, or from natural materials such as bushes, leaves, and grass which are moved from their original location.

## 7. Concealing Yourself

a. *Avoid Unnecessary Movement.* Remain still—movement attracts attention. You may be concealed when still, yet easily detected if you move. Remember that movement against a stationary background causes you to stand out very clearly. When



*Figure 2. Blend with your background.*

you must change positions, move carefully over a concealed route to the new position.

*b. Use All Available Concealment.*

- (1) Background is important; blend with it to prevent enemy detection of your position. Trees, bushes, grass, earth, and manmade structures forming your background vary in color and appearance, making it possible for you to blend with them. Select trees or bushes which blend with your uniform and absorb the outline of your figure.
- (2) Shadows help hide you. The soldier in the open in figure 3 stands out clearly, but the two soldiers in the shadows are difficult to see. Shadows are found under most conditions of day and night.

*c. Stay Low to Observe.* Observe from a crouch, a squat, or the prone position. You present a low silhouette, making it difficult for the enemy to see you.



*d. Expose Nothing That Shines.* Reflection of light on a shiny surface instantly attracts attention and can be seen for great distances.

*e. Keep Off the Skyline.* Figures on the skyline can be seen from a great distance, even at night, because a dark outline stands out against the lighter sky. The silhouette formed by your body makes a good target.

*f. Alter Familiar Outlines.* Military equipment and the human body are familiar outlines to all Soldiers. Alter or disguise these revealing shapes.

*g. Keep Quiet.* Noise, such as talking, can be picked up by enemy patrols or listening posts.

### 8. Temporary Battlefield Positions

Select temporary firing or observation positions which take advantage of available cover and concealment. Figure 5 illustrates some temporary battlefield positions. Study these pictures. They emphasize that you should:



*Figure 5. Shadows help hide you.*

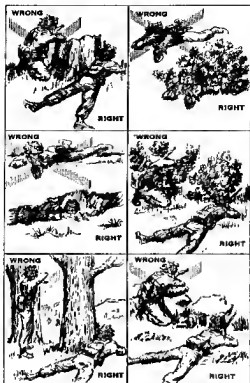


Figure 4. Correct and incorrect battlefield positions.

a. *Observe and fire around the side of an object.* This conceals most of your head and body.

b. *Stay low to observe and fire whenever possible.* You are a smaller target, you can aim better, and you take advantage of concealing vegetation.

c. *Select a good background before observing over the top of an object.* Avoid observing over the top of a ditch unless the sides are overgrown.

## 9. Camouflage

a. Camouflage consists of the measures you take to conceal

yourself, your equipment, and your position from enemy observation. You may use natural and artificial materials. Remember these rules:

- (1) Take advantage of all available natural concealment.
- (2) Alter the form, shadow, texture, and color of objects.
- (3) Camouflage against ground and air observation.

b. Camouflage your position as you prepare it.

- (1) Study the terrain and vegetation in the area. Arrange grass, leaves, brush, and other natural materials you use to conform to the area. For example, do not expect branches stuck into the ground in an open field to provide effective camouflage.
- (2) Use only as much material as needed. Excessive use of material (natural or artificial) can reveal your position.
- (3) Obtain your natural material over a wide area. Do not strip an adjacent area of all foliage because such bared areas attract enemy attention.
- (4) Dispose of excess soil by covering it with leaves and grass or by dumping it under bushes, into streams, or into ravines. Piles of fresh dirt indicate an area is occupied and reduce effectiveness of camouflage.
- (5) After your camouflage is completed, inspect it from the enemy's viewpoint. Check often to insure it remains natural looking and actually conceals your position. If it does not look natural, rearrange or replace it.
- (6) Practice camouflage discipline. The best camouflage fails to provide concealment if tracks lead to your position or if cans and boxes are scattered about. Every man in your unit shares this responsibility.

c. Equipment must blend with the natural background. Remember—vegetation changes color with the season.

- (1) Your web equipment—pack, belt, canteen cover—blends well with most terrain unless it is badly faded. If faded, color it to blend with the surrounding terrain. If no paint is available, use mud, charcoal, or crushed grass. Remember to paint in bold, irregular patterns (fig. 5).
- (2) Alter the distinctive silhouette of your helmet with a cover made of cloth or burlap colored to blend with the terrain. Let foliage stick over the edges to alter the outline—but do not use too much. If material for covers is not available, disguise and dull the surface of your helmet with irregular patterns of paint or mud. Use a camouflage band, string, burlap strips, or rubber bands to hold foliage in place.

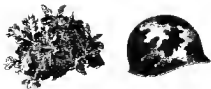
- (3) Use mud or dirt to dull the shiny surfaces of your weapon. Be careful, however, to keep the working parts clean so your weapon will function properly. Remember to dull the shine of the bayonet.
- (4) Wear a snow suit and color your equipment white when operating against a background of unbroken snow-covered terrain.
- (5) Color your equipment black or forest green when operating in the jungle.

d. Your field and work uniforms also blend well with most terrain unless they are badly faded. If your uniform is faded, camouflage it with mud, soot, paint, or dye.

e. Except for the snow suit, there is no issue camouflage suit for unusual conditions. If a snow suit is not available, you can make one from a sheet or mattress cover. You can make a suit to blend with other terrain by painting an old suit of fatigues or by attaching bow-ties of colored burlap garlands to an old suit of fatigues.

f. Exposed skin reflects light and attracts the enemy's attention. Even very dark skin will reflect light because of its natural oil.

- (1) Camouflage face paint sticks are issued in three standard two-tone sticks as follows:
  - (a) Loam and light green—for light skinned troops, in all but snow regions.
  - (b) Sand and light green—for dark skinned troops.
  - (c) Loam and white—for all troops in snow-covered terrain.
- (2) Paint the shine areas; forehead, cheekbones, nose, and chin with a dark color and shadow areas; around the eyes, under the nose, and under the chin with a light color. The issue type face paint stick should be used in a two-color combination applied in an irregular pattern.
- (3) Burnt cork, charcoal, or lampblack can be used to tone down exposed areas of skin when issue type face paint sticks are not available.
- (4) Mud should be used only in an emergency and then only after approval by a medical officer due to the possibilities of harmful bacteria. Mud changes color as it dries and may peel off, leaving the skin exposed.
- (5) When applying camouflage, use the buddy system—work with another man and check each other.



*Figure 5. Camouflage your equipment.*



*Figure 6. Camouflage your face in an irregular pattern.*

## 10. Care of Your Weapon

a. Your weapon functions best when properly maintained. Protect it from the weather; keep it free of sand, dirt, snow, or ice; do not abuse it or allow others to abuse it. Carry cleaning tools and materials and keep your weapon clean at all times, consistent with camouflage requirements.

b. In extremely cold weather your weapon can become so sluggish it will not fire. Use very little and very light oil in such climates. A weapon taken from freezing outside temperatures into warmer inside temperatures will sweat for about an hour. Dry your weapon off before taking it back into freezing temperatures or the condensed moisture will freeze the moving parts. If this happens, free the frozen parts by thawing; do not force the parts to move before thawing. If circumstances permit, leave your weapon outside when you enter warm shelters for short periods.

c. Oil on your weapon evaporates quickly in hot climates. Check it often—a dry weapon quickly develops trouble. Do not leave your weapon in the sun.

## 11. Using Your Weapon

a. Keep your weapon available at all times and always be ready to fire it. When firing, use the side of a building, a tree, a log, or anything which steadies your aim and increases your accuracy.

b. Exact, clear targets are seldom seen on the battlefield because the enemy is as anxious as you are to avoid detection. You may have to fire on suspected enemy positions even though you cannot see an enemy Soldier. This may stop the enemy from firing, force him to move, or scare him into surrendering. *Fire your weapon!* Ammunition kept in your belt when it should be fired, is wasted. You have to shoot to enable your unit to move forward and kill or capture the enemy.

c. Sometimes it is desirable to bring surprise fire on the enemy. In this case, hold your fire until ordered to shoot; then select your own aiming points or targets within the area assigned to you. When all men of your team do this, the initial burst is heavy and accurate.

## 12. Sounds and Smells

a. Sounds are information to you. Learn to identify common battlefield noises—the snap of a twig, the click of a bolt, the rattle of a canteen. *You can learn a lot by listening.* Train yourself to be patient—it may be necessary to listen in complete silence for



Figure 7. Estimating distance in day.

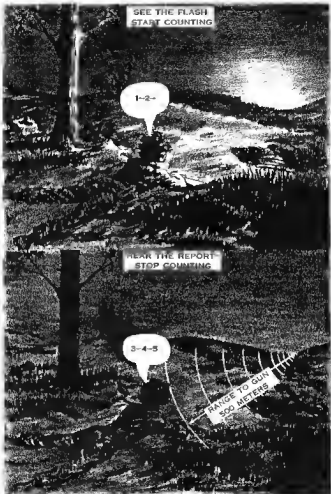


Figure 8. Estimating distance at night.



long periods. If you are wearing a hood or ear flaps, remove them temporarily to listen.

- (1) Sounds can be heard better at night because there are fewer sounds to interfere and because cooler, damper, night air carries sound better.
- (2) Sounds can reveal your presence to the enemy. Suppress a sneeze by pressing up on your nostril with your fingers. If you start to cough, squeeze your Adam's apple slightly. If you cannot avoid sneezing or coughing, muffle the noise by burying your nose and mouth in your hands or sleeve.

b. Smells can help or endanger you. Odors from gasoline, cooking food, or burning tobacco can warn you of the enemy's presence or alert him to yours.

### 13. Estimating Distance

a. Sound travels through the air at a fairly constant speed—about 330 meters per second (1100 feet). This makes it easy to estimate distance if you can see and hear the action. For example, when you see the flash or smoke of a weapon, or the dust it raises, immediately start counting at a rate of four counts per second. When you hear the report of the weapon, stop. The number you are counting when you stop is the range to the weapon in hundreds of meters. If you stop on the number three, the range is 300 meters. If you count to eight before you hear the report, the range is 800 meters (figs. 7 and 8).

b. Practice timing the speed of your count. The best way to do this is to practice with blank ammunition fired at known distances. If this is not possible, have someone time you while you count. When counting more than 10, start over again; counting numbers like 12 and 13 throws your timing off. When counting at the correct speed, you count to 10 twice in five seconds. Speed up or slow down until your timing is correct. With practice, you can estimate distance more accurately by this method than by eye alone.

### 14. Observation and Listening Posts

a. An observation post (OP) is a fixed location from which you observe an area. Observation posts are usually manned by teams, with two or more men on each relief so observation is continuous during periods of good visibility.

- (1) An observation post should be selected to provide—
  - (a) A good field of observation.
  - (b) Cover and concealment.

- (c) A concealed route of approach from the rear.
  - (d) An inconspicuous appearance.
- (2) The following should be avoided:
- (a) Positions with covered approaches from the flanks (the enemy might slip in on you).
  - (b) Prominent landmarks because they draw fire.
  - (c) Positions on the skyline or which silhouette you against a contrasting background.

b. A listening post (LP) is a position, usually at the forward edge of the friendly area, from which you listen and observe at night and during other periods of limited visibility. A listening post is a type of observation post and should be selected to provide the same features.

c. Observation posts and listening posts should be within small arms range of friendly personnel (460 meters). Radio or wire communication with your unit must be provided to enable you to report information promptly.

## 15. Navigation

### a. *Locating Yourself.*

- (1) Proper use of a map and compass is the best way to determine where you are. FM 21-26 explains how to orient a map and compare it to the terrain it represents, both with and without a compass.
- (2) If you do not have a map, you must locate yourself by recalling the terrain features you have passed and those you can see.

### b. *Finding and Maintaining Direction.*

- (1) The compass is your best means of finding and maintaining direction. See FM 21-26, Army Subject Schedule 21-21, "Land Navigation."
- (2) The sun, North Star, Constellation Cassiopeia, and Southern Cross can be used to find the direction of north (pars. 22 and 25). After finding north, you can orient yourself and move in the desired direction by remembering, as you face north (360°):
  - (a) Northeast (45°) is to your right front.
  - (b) East (90°) is to your right.
  - (c) Southeast (135°) is to your right rear.
  - (d) South (180°) is to your rear.
  - (e) Southwest (225°) is to your left rear.
  - (f) West (270°) is to your left.
  - (g) Northwest (315°) is to your left front.

*c. Aids to Navigation.* There are many other navigational aids. Use all aids available to check and doublecheck, to insure you know where you are and where you are going.

- (1) The location and direction of flow of principal streams.
- (2) Hills, valleys, and peculiar terrain features such as swamps and barren areas.
- (3) Railroad tracks, power lines, roads, towns, and other manmade objects.
- (4) The fire of machineguns, mortars, or artillery.
  - (a) If you know the general location and direction of fire of machineguns, you may be able to use these fires to orient yourself.
  - (b) Mortar and artillery rounds fired on known locations can guide you or help you orient yourself.
  - (c) These fires can be arranged before you leave, or called for if you have communication.

## 16. Selecting and Following Routes

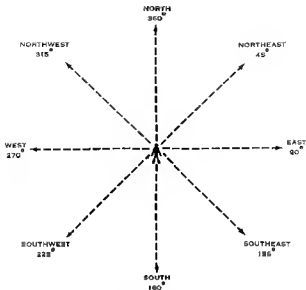
*a.* You may be directed to follow a certain route; your mission may require it, or you may select your own. So far as your orders and mission permit, select routes avoiding known enemy positions and obstacles, offering the most cover and concealment, and permitting quiet movement. Take advantage of the more difficult terrain.

*b.* Study maps, aerial photos, or sketches and memorize your route before you start. Note distinctive features (hills, streams, swamps) and their location in relation to your route.

*c.* Plan an alternate route to use in case you can't use your primary route.

*d.* As you move along your route, observe the terrain. Mentally check off the distinctive features you noted in planning your route so you are oriented at all times.

- (1) Avoid open areas.
- (2) Avoid moving along ridges. Move along the slope below the ridge to prevent silhouetting yourself.
- (3) Avoid obstacles which may be mined, boobytrapped, or covered by fire; for example, draws leading into enemy areas, ditches near enemy areas, wire entanglements, and road obstructions. Move around them if possible. If you must pass an obstacle, investigate it thoroughly.



*Figure 8. Face north and recall these directions.*

## 17. What to do if Lost

If you lose your way, do not continue until you have reoriented yourself with respect to the immediate terrain, the enemy, friendly forces, and your mission. Keep calm and think the situation over.

a. Establish north by compass or by one of the methods covered in paragraphs 22 and 25. Orient your map and pick out prominent terrain features. If you are able only to orient yourself to a general area, travel in a cardinal direction (north, south, east, or west) toward an easily recognizable manmade or natural feature such as a main road or a river. Use this feature to locate yourself or follow it until you have your position pinpointed.

b. If you do not have a map or compass, establish the direction in which you were traveling with reference to the sun, moon, or easily identifiable terrain features. Mentally retrace your route, recalling hills, trails, streams, and other terrain features you passed. Then go back in the direction from which you came until you are able to orient yourself.

c. Look and listen for signs and sounds of troops, artillery, vehicles, and small arms fire. Seek the assistance of friendly troops if any are in the area.

d. As soon as you are reoriented, *continue your mission.*

## 18. The Challenge and Password

a. Do not allow unidentified personnel to closely approach your position. Halt and identify them before they are close enough to be a danger to you. This precaution is very important at night and during other periods of poor visibility such as heavy fog.

b. Halt and identify personnel by proper use of the challenge and password. When you see or hear someone approaching, call "Halt!" Speak clearly and just loud enough to be distinctly understood. Keep him covered and do not expose yourself. When he halts, ask in a low, clear voice, "Who is there?" He should reply in a low, clear voice, giving the answer which best identifies him. For example, "Sergeant Jones, second squad." or "Friendly patrol leader." You then say, "Advance one man to be recognized." Continue to keep him covered without exposing yourself. Halt him two or three meters from your position. In a low, clear voice give him the challenge, for example, "Boston." He should answer with the password, for example, "Beana." If you are not completely satisfied, question him further. Ask questions only a friendly person would be likely to know.

c. Other men with him, such as members of a patrol, must also be identified. This can be done in two ways. Your commander should prescribe the method to be used in your unit.

- (1) The leader can vouch for the others and pass them to the flank of your position. This method reduces movement and noise at your position, and helps prevent revealing your location to the enemy.
- (2) The leader, or his representative, can identify each man as he passes, notifying you when the last man has passed.

d. The challenge and password are usually changed every 24 hours. Be sure you know the current ones.

e. The regular challenge and password should not be used outside friendly areas. Patrols, for example, should use a different challenge and password for recognition within patrols and between patrols operating in the same general area. Words can be used in the same manner as the regular challenge and password or a numbers system can be used. For example, the challenge is a number; the password is the number which, added to the challenge, totals a prearranged odd number. If the prearranged num-



Figure 10. A challenge and password are used for recognition.

ber is 13, the challenge is any number between 1 and 12. The password is the number which, added to the challenge, equals 13. Only *odd* numbers should be used as the prearranged total. If even numbers are used, such as 10, someone may challenge with 5; an enemy, upon being challenged, may repeat the number spoken and be passed as having been identified.

f. The principle to remember is that a means of recognition must be established and must be properly used.

## 19. Reporting Information

Your leaders need prompt, accurate information on which to

base plans and decisions. *All* information is important. See chapters 4 and 5.

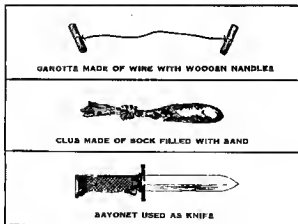
## 20. Silent Weapons

It may be desirable to kill, stun, or capture an enemy soldier without alerting other enemy in the area. The bayonet garotte (choke wire or cord), and homemade clubs are some of the weapons used for these purposes. FM 21-150 explains their use. Whether day or night, the successful use of silent weapons requires great skill, not only in their use, but also in quiet, careful movement.

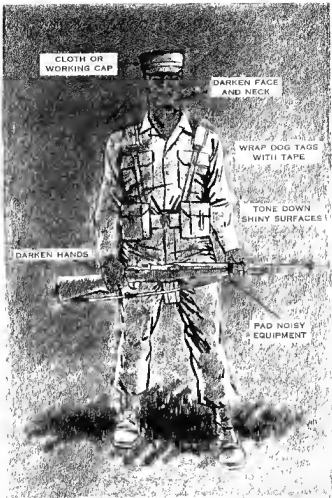
## 21. Movement

a. Follow these general rules to move without being seen or heard by the enemy:

- (1) Prepare yourself and your equipment.
  - (a) Camouflage yourself and your equipment.
  - (b) Tape your identification tags together and to the chain so they cannot slide or rattle.
  - (c) Tape your weapon swivels and keepers to prevent noise and snagging.
  - (d) Pad or tape loose items of equipment.
  - (e) Wear soft, well-fitting clothing. Starched clothing swishes as you move and loose, baggy clothing may



*Figure 11. These weapons make no noise.*



*Figure 12. Prepare carefully for movement.*

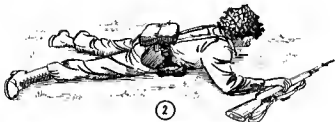


snag on brush. Use the thigh ties on the field trousers to take up slack and the ankle ties when you do not blouse the field trousers. *No other tie-downs should be used at any time.* They may interfere with circulation in the legs and feet. In cold weather, poor circulation may lead to frostbite or other cold injury.

- (f) Wear a soft cap, with its less distinctive outline, unless required to wear the helmet. The helmet may muffle or distort sounds, especially if there is a slight breeze.
- (g) Do not carry unnecessary equipment. You cannot move rapidly when weighted down.
- (2) Move by bounds; that is, short distances at a time. Halt. Listen. Observe. Then move again.
- (3) Look for the next spot where you will stop before leaving the concealment of one position. Observe that area carefully for enemy activity. Select the best available covered and concealed route to the new location; take advantage of darkness, fog, smoke, or haze to assist in concealing your movement.
- (4) Change direction slightly from time to time when moving through tall grass. Moving in a straight line causes the grass to wave with an unnatural motion which attracts attention. The best time to move is when wind is blowing grass.
- (5) Remain in position and observe briefly if you alarm birds or animals. Their flight or movement may attract the enemy's attention.
- (6) Take advantage of the distraction of noises.
- (7) Cross roads and trails where there is the most cover and concealment. Look for a large culvert, a low spot, or a curve. Cross quickly and quietly.
- (8) Follow the furrows as much as possible when crawling across a plowed field. When you must cross the furrows, look for a low section in the field; crawl down a furrow to that section, and make your cross-furrow movement.
- (9) Avoid steep slopes and areas with loose stones.
- (10) Avoid cleared areas to prevent being silhouetted.

b. The *rush* is the fastest way to move from one position to another. To rush—

- (1) Start from the prone position (1, fig. 13).
- (2) Slowly raise your head and select your next position (2, fig. 13).



*Figure 15. Rushing.*

- (3) Slowly lower your head. Draw in your arms to your body, keeping your elbows down, and pull your right leg forward (3, fig. 13).
- (4) With one movement, raise your body by straightening the arms (4, fig. 13).
- (5) Spring to your feet, stepping off with the left foot (5, fig. 13).
- (6) Run to the new position, using the shortest route (6, fig. 13).
- (7) Just before hitting the ground, plant both feet (7, fig. 13).



*Figure 13—Continued.*

- (8) Drop to your knees, at the same time sliding your hands to the heel of the rifle butt (8, fig. 13).
- (9) Fall forward, breaking your fall with the butt of the rifle (9, fig. 13).
- (10) Shift the weight of your body to your left side. With your right hand, place the butt of the rifle in the hollow of your right shoulder; then roll into a firing position (10 and 11, fig. 13).
- (11) Lie as flat as possible. If you think you were observed by the enemy, move to the right or left if cover and concealment exist.



Figure 15—Continued.

c. There are times when you must move with your body close to the ground to avoid being seen. There are two ways to do this, the *low crawl* and the *high crawl*. Use the method best suited to the conditions of visibility, cover and concealment available, and speed required.

- (1) Use the *low crawl* when cover and concealment are scarce, when visibility permits good enemy observation, and when speed is not essential.



1



2

*Figure 13—Continued.*

- (a) Keep your body as flat as possible against the ground. Grasp the rifle sling at the upper sling swivel. Let the balance of the rifle rest on your forearm and let the butt of the rifle drag on the ground. Keep the muzzle off the ground (1, fig. 14).
- (b) To start forward, push your arms forward and pull your right leg forward (2, fig. 14).



10



11

Figure 13—Continued.

- (c) To move forward, pull with your arms and push with your right leg.
- (d) Change your pushing leg frequently to avoid fatigue (3, fig. 14).
- (2) Use the *high crawl* when cover and concealment are available, when poor visibility reduces enemy observation, and when you require more speed.
  - (a) Keep your body free of the ground and rest your weight on your forearms and lower legs. Cradle the rifle in your arms, keeping its muzzle off the ground. Keep your knees well behind your buttocks so it stays low.
  - (b) Move forward by alternately advancing your right elbow and left knee, left elbow, and right knee (fig. 15).



Figure 14. The low crawl.

d. Use the methods explained below when extremely quiet movement is necessary, such as when you are very near the enemy. These movements are very slow and tiring and require great patience to perform properly.

- (1) *Walking* (fig. 16). Make your footing sure and solid by keeping your weight on one foot as you step. Raise your other leg high to clear brush or grass. With your weight



Figure 15. The high crawl.

on the rear leg, gently let your foot down toe first. Feel with your toe to pick a good spot. Lower your heel after finding a solid place. Shift your weight and balance to your forward foot. Short steps must be taken to avoid losing your balance. At night, hold your weapon with one hand and extend the other forward, feeling for any obstructions as you move.

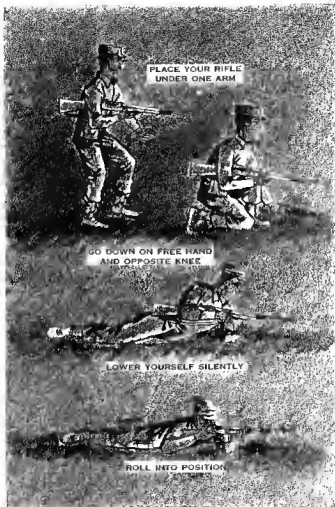
- (2) *Going into the prone position* (fig. 17). Crouch slowly. Hold your weapon under your arm and feel for a clear spot with your weight on your free hand and opposite knee. Raise your free leg up and back, and lower it to the ground, feeling with your toe for a clear spot. Roll gently into the prone position. If you are discovered by the enemy, go into the prone position rapidly (8, 9, 10, and 11, fig. 13).



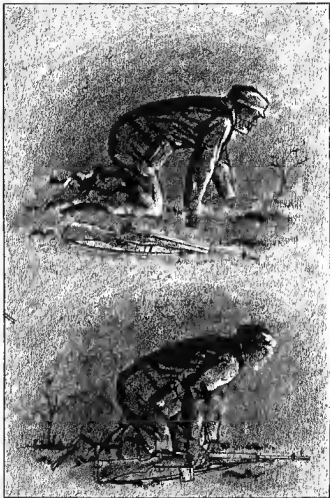


*Figure 16. Toe first and gently.*

- (3) *Crawling* (fig. 18). The low crawl and high crawl are not suitable when you are very near the enemy. They make a shuffling noise which is too easily heard. Crawl on your hands and knees. Lay your weapon on the ground by your side. With your right hand, feel for or make a clear spot for your knee. Keep your hand on the spot and bring your right knee forward until it meets your hand. Clear a spot with your left hand and move your left knee up in the same way. To move your weapon, feel for a place, clear it, and lift the weapon into position. Crawl very slowly and keep your movements absolutely silent.



*Figure 17. Feel for the ground.*



*Figure 18. Crawl slowly and silently.*

### Section III. DAY COMBAT

#### 22. Finding Direction

If you do not have a compass, you can use your watch and the sun to find approximately true north (fig. 19). See FM 21-26.

a. In the *North Temperate Zone*, with your watch set on standard time, hold the watch face up in your hand or place it on a flat surface. Turn it until the hour hand points directly at the sun. To be sure you have pointed the hour hand correctly, hold a small stick vertically beside the watch at the end of the hour hand. Turn

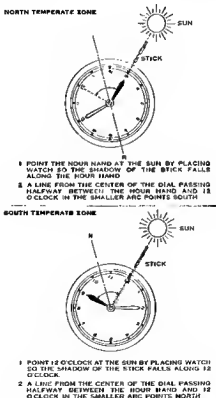


Figure 19. Watch and sun method of determining direction.

the watch until the shadow of the stick falls along the hour hand. Without moving the watch, divide the smaller angle between 12 o'clock and the hour hand into two equal parts. An imaginary line from the center of the watch through this half-way point on the edge of the watch points south; the opposite direction is north.

b. In the *South Temperate Zone*, with your watch set on standard time, place the watch on a flat surface and turn the watch so 12 o'clock points directly at the sun. Without moving the watch, divide the smaller angle between 12 o'clock and the hour hand into two equal parts. An imaginary line from the center of the watch through this half-way point on its edge points north.

### 23. Searching Terrain

Visually search terrain in two steps.

a. Make a quick overall search for obvious targets and unnatural colors, outlines, or movements.

- (1) Look straight down the center of the area you are observing, starting just in front of your position.
- (2) Raise your eyes quickly to the maximum distance you wish to observe.
- (3) If the area is wide, further subdivide it as shown in figure 20.

b. Next, cover all the area, as follows, first searching the ground nearest you:

- (1) Search a strip 50 meters deep, looking from right to left parallel to your front.
- (2) Search from left to right over a second strip farther out, but overlapping the first strip.
- (3) Continue in this manner until you have studied the entire area (fig. 21).
- (4) When you see a suspicious spot, stop and search it very closely.

## Section IV. NIGHT COMBAT

### 24. Movement

You must usually move more quietly at night than in day. Here are some general rules to help you:

a. Move around thick undergrowth, dense woods, and ravines. Your field of observation is reduced and it is difficult to move quietly.

b. Move as quickly as circumstances allow, but avoid running if possible. You may fall or make unnecessary noise.

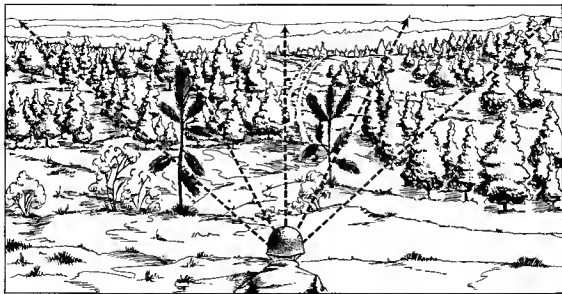


Figure 20. Make a quick overall search.

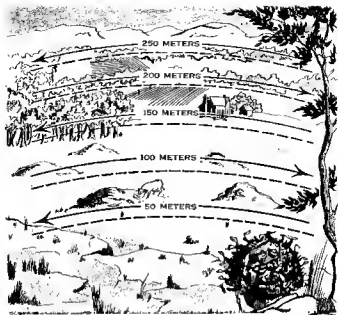


Figure 21. Then search the terrain in overlapping strips.

## 25. Finding Direction

If you do not have a compass, there are other methods you can use to find direction.

a. The North Star shows you true north in the Northern Hemisphere and is accurate all year round. To find the North Star, look for the Big Dipper (fig. 22). The two stars at the end of the bowl are called the pointers. Look in the direction water would pour from the dipper. In a straight line out from the pointers (at about five times the distance between the two pointers) is the North Star. Remember, the Big Dipper rotates slowly about the North Star and will not always appear as shown in the illustration.

b. You can also use the Constellation Cassiopeia to find the North Star. This group of stars is shaped like a lopsided M. The North Star is straight out from the bottom point of the M about the same distance as from the Big Dipper.



Figure 22. Locating the North Star.

c. South of the equator, use the Southern Cross to find direction. There is no prominent star to indicate south, but you can find the approximate direction by measuring straight out from the foot of the cross a distance five times the length of the cross itself. This imaginary point is the general direction of south. The stars of the long axis of the cross are the pointers (fig. 23).

d. You can arrange for, or call for, flares to be fired over a known position. When one is fired, orient yourself quickly because flares drift with the wind. You can also request that tracers be fired on a certain azimuth at a specified time(s) to aid in determining your position/direction.

e. The field artillery searchlight can be used to indicate direction. The beam can be laid on prearranged azimuths or it can be used to illuminate specific points.

## 26. Security

a. Keep all light concealed. A common match is visible up to 16 kilometers (10 miles).

b. Know and use the challenge and password (par. 18).

c. Rotate watch and rest periods when someone is with you.

## 27. Action Under Flares

a. Hit the ground if caught in the open by an overhead flare (fig. 24). The burst of light is temporarily blinding and may prevent you from being seen. If you hear the flare being fired, get down *before* it bursts. Resume movement as soon as the flare burns out.





Figure 23. Locating south by the Southern Cross.

b. If caught in the light of a *ground flare*, move out of the lighted area quickly and quietly. Keep moving until you are well away from the area.

c. If caught by a flare when crossing an obstacle such as barbed wire, crouch low and stay still until the flare burns out.

## 28. Passing Obstacles

At night, as in day, avoid obstacles whenever possible (par. 16). If you cannot bypass them, investigate thoroughly, moving slowly and cautiously. Do not pass through obstacles protected by anti-personnel mines if at all possible. Bypass the obstacle or use another route.

a. Every army uses barbed wire obstacles—double apron, four strand, high wire fences, and concertinas. Stay low when approaching wire. Silhouette the wire against the sky and figure out its design. Frequently enemy positions are located in proximity to wire obstacles.

(1) If not mined, you may be able to pass over the wire (fig. 25).

(a) Grasp the first strand lightly and cautiously lift one leg over. Lower your foot to the ground, feeling care-



*Figure 24. Hit the ground when an overhead flare bursts.*

fully for sure footing. Lift your other foot over the wire. Quietly release the wire and feel for the next strand. Cross it in the same manner.

- (b) You may be able to pass over wire by putting a wool or grass mat or chicken wire netting over it. Cross slowly because such a mat or net forms an unstable path.
  - (c) Loose wire or a concertina can be crossed by one man placing himself prone on the wire. He becomes a bridge over which the other men walk.
- (2) It is often best to go under wire (fig. 25) because you do not expose yourself as you cross over it. Go through head



*Figure 25. Go over or under wire cautiously.*



Figure 26. When cutting wire, deaden the sound with cloth.

first. Slide under the bottom strands on your back, using your heels to push yourself forward. Inch your way along, holding the wires up with your hands. Feel ahead as you move—there may be low strands or trip wires. Carry your weapon lengthwise on your stomach to leave your hands free. Do not pull or jerk on the wires.

- (3) If it is necessary to cut your way through wire (fig. 26), cut only the lower strands and leave the top wire in place. This makes it harder for enemy to discover the gap. Cut the wire near a picket. When someone is with you, have him hold the wire with both hands. Wrap cloth, such as rifle patches, around the wire and cut between his hands. Quietly bend back the loose ends. When you are alone, wrap cloth around the wire, hold it, and cut between your hand and the picket. Carefully roll back the loose end to clear your path. *Do not cut a concertina.* Between stakes or pickets, it is like a spring and may snap back and reveal your presence.

*b.* Your route may be blocked by wide ditches and intrenchments. If so, climb quietly and carefully down one side and up the

other. If the ditch or trench is narrow, you may jump across it. Select a point some distance from a junction with a connecting trench, crawl up to the edge, and cautiously look in. Be sure you have firm and quiet footing on both sides. Rise and jump across. Land on one foot and drop quietly to the ground. Lie still for a moment. Listen before you rise and go on.

c. Be alert for other types of mines and avoid them whenever possible, even if it means going a considerable distance out of your way. Routes of approach, ditches, and the banks of streams are frequently mined and should be carefully checked. If you must pass through an area which has been mined, use extreme caution and work your way through slowly. Use your hands to detect trip wires and probe gently with your bayonet for buried mines. For additional information on mines, see FM 20-32.

## 29. Firing

a. The technique of night firing is a pointing method looking over the top of the barrel with your head held high and both eyes open during all conditions of visibility. Under conditions of very high illumination, the mass of the sights may be seen well enough to improve your alignment. Reference FM 23-71, Rifle Marksmanship Course, Trainfire I.

b. You may be able to locate enemy positions by having one or two men move off to one side and fire a few rounds to draw the enemy's fire. The enemy may use the same technique against you. Do not fall for this trick. In a defensive situation, fire when you detect the enemy, whether he is firing or not. In an attack, fire only after the enemy detects and fires at you unless you receive other orders.

c. Use hand grenades where possible. Their radius of burst makes them effective against uncertain targets and they do not disclose your position.

## Section V. NIGHT VISION

### 30. You Can See at Night

You can see much more in the dark than you realize. However, to take maximum advantage of this ability, you must understand how your eyes are constructed and how to use them to see best under conditions of poor visibility.

### 31. Your Eyes Are Like a Camera

Certain parts of your eyes correspond to parts of a simple camera (fig. 27).

a. The *lens* focuses light entering the eye just as does the lens of a camera.

b. The *iris* corresponds to the diaphragm of a camera, opening and closing to regulate the amount of light entering the eye through the *pupil*.

c. The *retina* corresponds to camera film. Light rays strike the retina, form an image, and cause an impression to be transmitted to the brain through the optic nerve. The brain tells us what we see. In a camera, the image is formed and fixed on the film.

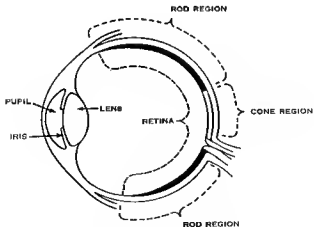
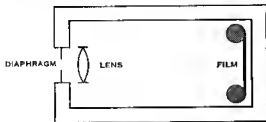


Figure 27. Your eye is like a camera.

### 32. Day and Night Eyes

The retina is composed of cone cells and rod cells, so-called because of their shapes.

a. Cone cells enable you to see color, shape, and sharp contrast. A great deal of light is required to activate them and they are blind during periods of low illumination. For this reason, they are your *day eyes*. The cone cells are concentrated in the *cone region*, directly behind the lens, and decrease in number with distance from the center of the cone region.

b. Rod cells produce a chemical substance called *visual purple* which makes them active in darkness or periods of low illumination. They are your *night eyes*. Rod vision enables you to distinguish black, white, and shades of gray and to distinguish general outlines. Most of the rod cells are in the area of the retina around the cone region. A few are in the cone region.

### 33. Seeing at Night

Using your eyes effectively at night requires the application of the *principles of night vision*—dark adaptation, off-center vision, and scanning.

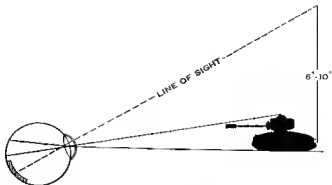
a. *Dark adaptation* means allowing your eyes to become accustomed to low levels of illumination. It takes about 80 minutes for the rod cells to produce enough visual purple to activate them and enable you to distinguish objects in dim light. This may also be accomplished by staying in a red-lighted area, or by wearing red goggles for 20 minutes, followed by 10 minutes in darkness (to allow the pupils to open wide). This method may save valuable time by allowing you to be in lighted area to receive orders, check equipment, or perform some other function before moving into darkness.

b. *Off-center vision* is the technique of keeping your attention focused on an object without looking directly at it. When you



LOOK DIRECTLY AT THE OBJECT SO THAT THE  
IMAGE IS FORMED ON THE CONE REGION  
(YOUR DAY EYES)

Figure 28. Day vision.



LOOK SLIGHTLY AWAY FROM THE OBJECT  
SO THAT THE IMAGE IS FORMED ON THE  
ROD REGION (YOUR NIGHT EYES)

Figure 29. Night vision.

look directly at an object, the image is formed on the cone region (fig. 28) which is not sensitive at night. When you look slightly to the left, right, above, or below an object, the image is formed on the area of the retina containing rod cells which are sensitive in darkness. The most sensitive area varies in individuals, but usually is found by looking six to ten degrees away from an object (fig. 29). In effect, you look out of the corner of your eye.

c. *Scanning* is using off-center vision to observe an area or an object. When you use rod vision, the visual purple in the rod cells being used bleaches or blacks out in four to ten seconds and the object observed disappears. As the visual purple in the rod cells in one area bleaches out, you must shift your eyes slightly so fresh rod cells are used. Move your eyes in short, abrupt, irregular movements over and around your target, as shown in figure 30. Concentrate your attention on the target, but do not look directly at it. Pause a few seconds at each point of observation because your eyes cannot see while in motion.

#### 34. Factors Affecting Night Vision

Visual purple is chemically related to vitamin A, and a serious lack of vitamin A impairs your night vision. However, excessive amounts of vitamin A will not necessarily improve your night vision. Colds, headaches, fatigue, narcotics, heavy smoking, and





*Figure 30. Scan at night in short, abrupt movements.*

excessive use of alcohol reduce your ability to see at night. Exposure to bright light for extended periods impairs both day and night vision.

### **35. Preserving Night Vision**

Night vision is quickly destroyed if bright light is allowed to enter the eye. If this cannot be avoided, such as when you must enter a lighted area or observe in a temporarily lighted area, close and cover one eye to preserve the night vision in that eye. When the light goes away, or you leave the lighted area, the night vision retained by your protected eye enables you to see until the other becomes dark adapted again.

### **36. Confidence**

Confidence is very important. You usually use your eyes where there is plenty of light so you are used to sharp outlines and bright colors. In darkness, objects are faint, have no sharp outlines, and little or no color. You must believe what your eyes tell you. Gain confidence by faithful practice in using the principles of night vision.

## CHAPTER 3

### INDIVIDUAL PROTECTION

---

#### Section I. ACTIVE MEASURES

#### 37. Take Active Measures

a. A boxer partially protects himself by using his hands and arms to ward off blows and by using his feet to move around to deceive and evade his opponent. He gets even more protection by attacking his opponent, by aggressively boring in—keeping him off balance and so busy defending that he cannot fight back.

b. The harder you hit the enemy on the battlefield, the more protection you have. Your means to destroy the enemy are also your means of self-protection. Do correctly what you have learned in the individual training of the combat Soldier and you automatically have great collective and individual protection.

#### 38. Active Individual and Unit Protective Measures

##### n. *Aggressive Spirit and Teamwork.*

- (1) *Aggressiveness.* Aggressive action by you and your fighting team tends to catch the enemy off guard and lessens his chances to plan and prepare to deal with you.
- (2) *Versatility.* React quickly and effectively to any new method or technique the enemy develops. Learn to expect unfavorable conditions and be prepared to deal with them.
- (3) *Teamwork.* Strive to improve and develop your skill and add to the skill of your team. A team is only as effective as its individual members. Learn the jobs of other members of your team and be prepared to substitute for them at any time. Have confidence in your ability, the ability of your team, and your equipment. Remember, success on the battlefield is the direct result of a well-disciplined individual being a member of a well-trained and properly coordinated team.

##### b. *Firing Positions.*

- (1) *Selection of positions.* Before you move forward, pick the best cover available and select your position. The position should give you a good firing position, enable you to fire

readily, and provide you with the maximum cover and concealment. Your fire helps to keep the enemy fixed. When you do not fire, the volume of fire from your unit is reduced and you lose the protection it provides. See paragraph 8 and figure 4.

- (2) *Firing from covered positions.* A covered firing position not only gives you protection, but also gives you an opportunity to increase the accuracy and volume of your fire. Learn to fire from various covered positions while exposing a minimum portion of your body. The less the enemy sees of you, the less chance he will have of hitting you.

*c. Maintaining Contact and Communication.*

- (1) A battlefield is often a scene of isolation. Nothing seems to move and there are few signs of action. You may feel that you, too, are isolated if you cannot see the other members of your squad or unit. Know the location of the men around you and the position of your unit leader. Know what they are doing. You fight better when you know you are backed up by the rest of your team. If you lose contact, think clearly and reestablish contact with your unit as quickly as possible.
- (2) Know and use the identification or recognition system established in your unit.
- (3) By maintaining contact, you develop a feeling of unity with those around you. It is possible to keep in contact by sight alone, but talking to people around you is sometimes best. The sound of a human voice increases your sense of security and adds to your confidence. You learn their situation and their intentions, and they learn yours. Be very careful in talking. The sound of voices may enable the enemy to locate your position.
- (4) When your presence or the presence of your unit is unknown to the enemy, pass on commands by whispering. In doing so, expel a portion of your breath and whisper into the other man's ear. If the enemy discovers you, pass on all orders in a normal tone of voice. At such a time, speed is essential and clearly understood orders are necessary.

*d. Weaknesses of Enemy Tanks.*

- (1) The presence of enemy tanks presents a real and psychological threat, but they have definite limitations which make it possible for you to destroy them. The tank's ability to maneuver is limited in built-up areas, defiles,

swampy and mountainous country, and forests; and during darkness, rainy weather, and in heavy snow. Individual tanks not protected by infantry or other tanks, are ideal targets for tank-hunter teams. Having relatively thin armor on the sides, rear, and bottom, they are extremely vulnerable to fire from these directions.

- (2) Small arms fire on a tank forces it to "button up." This limits visibility and maneuverability. Tanks have blind spots, especially on the sides and the rear when buttoned up. You can move in under the cover of fire from your unit to take advantage of these blind spots and to employ your antitank weapons against the sides or rear. You may knock them out or immobilize them by placing explosives on or between their tracks. Once the tank is immobilized, the tank crew is at your mercy. Learn the capabilities and limitations of the enemy's tanks, seek out his weak spots, and take advantage of them. The aggressive, well-trained individual or small unit presents a threat to any enemy tank.

*e. Supporting Fires, Fire Superiority, Movement, and Assault.*

- (1) *Supporting fires.* Fires from artillery, recoilless rifles, mortars, and other supporting weapons also provide you protection. They neutralize the fires of enemy supporting weapons and keep enemy troops from firing at you. Move forward under the protection of these fires, but do not expect them to do your job. Be prepared to adjust supporting fires if you have communication with them. Often you may be in a better position to observe the strike of supporting fires than the observer for those weapons. Your ability to communicate with supporting units and adjust their fire add to their effectiveness. Your fire is needed also. It is under the protection of *all* fires together that you close with and kill or capture the enemy.
- (2) *Fire superiority.* The more accurate your fire, the less chance the enemy has to fire back. If your bullets are hitting the enemy or cracking near his ears, he is less likely to raise his head to even look for you. Use your weapon skillfully to produce, along with others near you, a heavy volume of accurate fire. When this volume of fire fixes the enemy, inflicts casualties, or causes him to cease or slacken his fire, you have fire superiority. Once you have this fire superiority, maintain it; it protects you by preventing the enemy from firing accurately at you.

- (3) *Movement.* Fire superiority and movement go hand-in-hand. When you move forward continuously, rapidly, and aggressively, you suffer fewer casualties. You catch the enemy by surprise and in a dazed condition from your supporting fire. The fire superiority your unit builds up protects you as you move forward. Look for ground ahead of you from which your fire will be most effective. Move so you can get close to the enemy and fire with increased effectiveness. Sometimes the very act of moving gives you protection, since the enemy often adjusts his fires on the spot where he last saw you. If you have moved from an area, his fire in that spot cannot hurt you. If you are caught in mortar or artillery fire, the surest way to get out of it is to continue your advance through or around the impact area. The enemy cannot adjust his fires as quickly as you can move. Furthermore, a rapid advance shortens the time you are exposed and lessens your chances of being hit.
- (4) *Assault.* When the fires of the attacking echelons have eliminated or neutralized effective enemy fire, assault fire techniques are employed. You close with the enemy, moving rapidly, fire well-directed shots either from the shoulder or underarm position at locations in your zone of advance that could conceivably contain an enemy. When the enemy exposes himself or a definite target appears, you must fire a well-directed shot. Regardless of whether you fire from the shoulder or underarm position, it usually will be necessary to pause in order to insure a well-directed shot. This phase of the assault is characterized by the volume and accuracy of fire and violence of action. It is designed to kill and demoralize the enemy and keep him down in his hole until you can close with and kill or capture him.

## Section II. PASSIVE MEASURES

### 39. What You Must do to Protect Yourself

a. *You May Stay in One Position for Some Time.* If your unit is halted for an extended period, protect yourself against enemy action. Keep abreast of the situation and pass on all information you receive. Prepare positions which protect you against air, ground, and CBR attacks. Use all techniques of camouflage and concealment during daylight hours as well as at night. Keep equipment issued for the construction of positions in first-class

condition; turn it in for exchange if it becomes unserviceable. Avoid being caught short due to negligence on your part.

*b. Role of the Individual in a Particular Operation.*

- (1) *Security.* Security prevents surprise and permits freedom of movement by members of your unit. Establish security immediately.
- (2) *Construction.* Begin the construction of your position as soon as possible, whether in an assembly area or a forward defensive position. The improvement of your position continues until your unit leaves the area. Security may require you to do a great deal of work on your position during hours of darkness.
- (3) *Coordination and communication.* Check with the men on your right and left. Exchange information with them. Be sure to assist them and arrange for them to assist you. Coordinated efforts help to accomplish your mission.

#### 40. Fighting Emplacements

*a. Techniques of Digging In, Construction, Concealment, and Improvement.*

- (1) *Digging in.* Start digging in when the situation requires it, and take advantage of all available natural cover. You are required to be ready to fight at any time; therefore, prepare your position so you can cover your assigned area with your weapon. Dig in properly and your position becomes more than a means of protection—it becomes a fighting position from which you can perform your job.
- (2) *Construction.*
  - (a) *Equipment.* The first step in a good plan for constructing a position is the consideration of your tools. What tools are required and what are available? An intrenching tool is issued to each Soldier; but if necessary, you can use a helmet or a bayonet. Keep your intrenching tool clean, sharp, and as dry as possible. With it you can dig, soften, or break hard ground, and clear brush for your field of fire. Shovels, axes, picks, saws, and crowbars may be issued to you to clear firing lanes in heavy woods, to cut logs for overhead cover, and to cut saplings to strengthen the sides of your position. Enemy equipment and material may be available. During cold weather, demolitions may be provided to break up frozen soil.

- (b) *Concealment of fresh soil.* The plan for your position must include some way to dispose of the soil. Use part of it to make a parapet or ridge of earth around your position. First, slice off the top soil and grass and set it aside. Then with the fresh soil build a parapet all around the position 15 centimeters high (6 inches) and a meter wide (3 feet). This parapet will provide adequate protection from small arms fire. Cover it with the top soil and grass to hide its light color. Place the remainder of the soil in a sandbag or shelter half and move it well away (fig. 31), dumping it under bushes, in a stream, or in a ravine. Excess soil can also be used when constructing overhead cover for your position.
- (c) *Drainage.* Provide for drainage by sloping the bottom of the hole so water flows to a place where it can be balled out with a helmet. In 1- and 2-man foxholes or in cave holes, dig a sump for drainage—a small hole at the bottom of the position about 60 centimeters (2 feet) long, 45 centimeters (18 inches) wide, and 30 centimeters (1 foot) deep. Slope the bottom of the sump. Drainage is easy in sandy soil but not in clay. In a rain, creek banks and low level ground will flood; avoid these areas if possible. A spot with a gentle slope is best. Dig a trench around your position on the uphill side to carry surface water away. In building the parapet, make the inner edge higher than the ground. From the inner edge it slopes outwardly toward the ground. Finally, when building overhead cover, include any waterproof material you can find—sheets of metal, doors, roofing paper, or your shelter half.
- (3) *Camouflage.* A continuous step in building any position is to hide it. When possible, do most of your work at night, avoiding movement and noise. Make a camouflage cover for your position (fig. 32), using natural material. Cover all of the open part so the hole does not show up as a dark spot (par. 9).
- (4) *Improvement.* Improvements consist of reinforcing, constructing storage space for ammunition, and constructing overhead cover; and later on, a place to sleep. Continue improvement until you leave the position.
- (a) *Reinforcing.* Sandy soil is apt to cave anytime and almost any soil will cave in when wet. To prevent this, strengthen orrevet the side of your position with cut

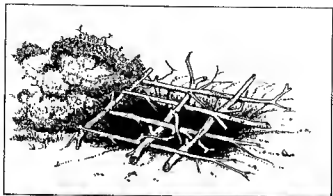


*Figure 31. Conceal fresh soil.*

saplings (fig. 33). Such revetting requires an ax, a lot of saplings of about the same size, and something to drive them. Shell cases, ammunition boxes, or sandbags may be used for revetting. In a static situation or where revetting material is scarce, prefabricated parts for revetment may be constructed to the rear of your position and moved in under cover of darkness.

- (b) *Ammunition.* Construct a storage space to keep your ammunition and grenades dry, clean, and readily available. You may use old ammunition boxes for this purpose. Dig whatever type container you use into the side of your position within easy reach. When the enemy attacks, ammunition and grenades are readily available and serviceable. You may have only a few minutes in which to repel his attack. An instant and heavy volume of accurate fire may be the deciding factor.





*Figure 32. Camouflaged foxholes.*

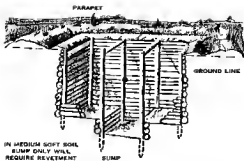


Figure 33. Cut-timber revetment.

- (c) **Cover.** Your helmet gives some protection from enemy shells which explode in the air, but you need more protection under heavy fire. You get this protection by covering part of your position with at least 30 centimeters (one foot), preferably 46 centimeters (18 inches) of logs, sandbags, rock, and dirt, in that order. If waterproofing is desired, place it between the soil and earth covering to prevent saturation of earth cover. Never use sandbags to support overhead cover. You can use any available material to make overhead cover, but keep it low and put topsoil over fresh earth. Cover is increased as time permits, but must be such that it will not collapse. In fighting positions, give yourself maximum fields of fire and observation in the direction of the enemy. Cover only part of the position, using sandbags to keep dirt from falling between large logs (fig. 34). Time permitting, your covered position should include an adjoining open position which can be used at night or when the enemy launches his assault.
- (d) **Sleeping quarters.** Should you occupy a position for some time, it is necessary to construct some type of adjoining compartment for sleeping quarters. Your sleeping quarters should be similar to a prone emplacement, covered and adjoining your fighting position.

**b. Hasty Positions.** These are good for a short time because they give some protection from direct fire. If you stay in the area, they must be developed into wall-prepared positions.

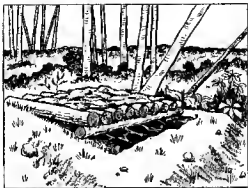


Figure 34. Log, waterproof paper, sandbags, stand overhead cover.

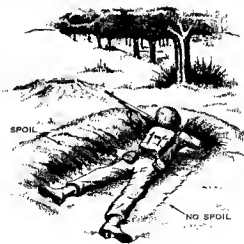
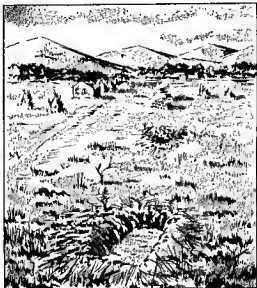
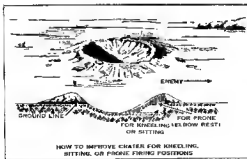


Figure 35. A shallow trench.



*Figure 36. Hasty positions in an open field.*



*Figure 37. Craters can be improved.*

- (1) *Shallow trench.* A shallow trench provides body protection when you first stop (fig. 35).
- (2) *Shell crater.* A shell crater can be quickly made into a hasty position (fig. 37).
- (3) *Tunnels.* In hedgerow country or where there are dikes, levees, or embankments dig a tunnel through the bank and make an opening on the enemy side through which to fire (fig. 38). Leave as much undisturbed earth as possible over your tunnel for protection from tank crushing action.
- (4) *Rocks, snow, and ice.* Pile up rocks, chunks of ice, or pack snow to provide protection.



*Figure 38. Firing position tunneled through a hedgerow (rear view).*

c. *Types of Foxholes.* Individual foxholes are used extensively, but the 2-man foxhole is more desirable as it permits one man to rest while the other acts as security. Usually the long side of the foxhole is parallel to the front line.

- (1) *One-man foxhole.* If you are assigned an individual position, dig a 1-man foxhole (fig. 39). This type foxhole is deeper than a hasty position and can be well revetted, drained, and camouflaged. Dig a hole 60 centimeters (2 feet) wide by 107 centimeters (3½ feet) long. It should be at least 120 centimeters (4 feet) deep, but may be deeper for a tall man. Dig out another 45 centimeters (18 inches) to make a grenade sump similar to the one illustrated in figure 39. After the position is completely dug, put overhead cover on the rear of the top. Keep this cover low but make sure you can see to shoot. Finally, prepare a camouflage cover which can be used in the daytime and laid aside at night.
- (2) *Two-man foxhole.* Teamed with another man, you can construct a 2-man foxhole in a hurry. When you have the position completed, one of you can stretch out and rest or sleep while the other is alert and observing. Both of you can get in under the overhead cover during artillery fire. Camouflage this cover for daylight use. See figure 40.

d. *Cave Holes and Prone Emplacements.*

- (1) *Cave holes.* In rough or snow-covered country, a cave gives good protection. These holes are hard to dig but easy to hide if you carefully conceal the soil you dig out. Be sure to dig a sump for drainage. Make the inside just large enough for you and your weapon. In snowbank caves, keep the firing slot small because it shows up black in the white snow. A small snow cave is the warmest. Leave snow on the floor and pack it down. Make a small side or rear entrance. See figure 41.
- (2) *Prone Emplacements.* In rear areas and camps, a prone emplacement may be constructed to protect you from artillery and aircraft. Dig a trench 60 centimeters (2 feet) wide, 60 centimeters (2 feet) deep, and long enough to lie in (fig. 42). The position must be well camouflaged and close enough to be reached within a few seconds from where you are normally located.

e. *Clearing Fields of Fire.*

- (1) When you are on the offensive and in continual contact with the enemy, there is little opportunity to clear fields of fire. Advancing individual riflemen and weapons

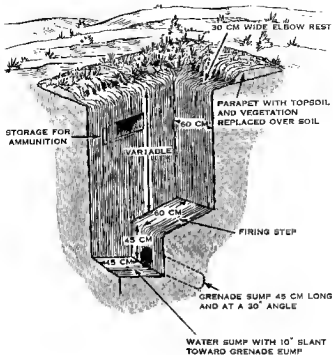


Figure 33. One-man foxhole.

crews must select the best natural positions available, and ordinarily you will have time to clear only the areas in your immediate vicinity. However, in preparing defensive positions for expected contact with the enemy, suitable fields of fire are cleared in front of each position. The following principles must be observed:

- (a) Do not disclose your position by excessive or careless clearing (fig. 44).
- (b) In areas organized for close defense, start clearing near your position and work forward at least 100 meters (110 yards).

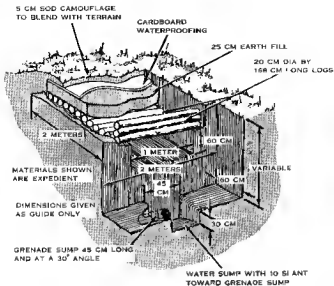


Figure 40. Two-man foxhole.

- (c) In all cases, leave a thin natural screen of vegetation to hide defense positions.
- (d) In sparsely wooded areas, remove lower branches of large scattered trees.
- (e) In heavy woods, complete clearing of the field of fire may neither be possible nor desirable within the time available. Restrict work to thinning undergrowth and removing lower branches of large trees. Clear narrow lanes of fire for automatic weapons (fig. 43).
- (f) Remove or thin dense brush. It is never a suitable obstacle and obstructs the field of fire.
- (g) Cut weeds only where they obstruct your view.
- (h) Drag away cut brush, limbs, and weeds to points where they will not be detected by the enemy or furnish him with concealment.
- (i) Before clearing the fields of fire, you should make a careful estimate as to how much clearing can be done



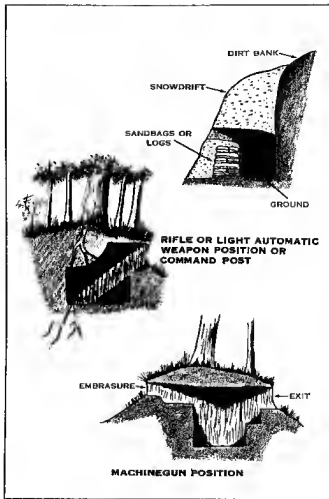


Figure 41. Types of cave holes.

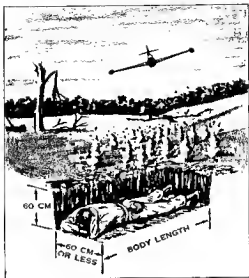


Figure 42. A prone emplacement.

In the time available. This estimate often determines the nature and extent of the clearing to be undertaken, since a field of fire improperly cleared may afford the enemy better concealment and cover than if you left the area in its natural state.

- (j) Mow or burn grain crops, hay fields, and tall grass areas.

#### 41. Defense Against CBR Attack

There may be little or no warning prior to CBR (chemical, biological, radiological) attack. Defense against such an attack begins with the individual. You must be prepared to protect yourself through modification of your position, proper wearing of protective clothing, proper use and care of your protective mask, and through good sanitation.

a. *Modification of Positions.* A foxhole deepened by at least 30 centimeters (1 foot) and provided with a 30 centimeter (1 foot) fire step and overhead cover gives you an excellent place to occupy during a nuclear attack. Cover any entrances or apertures with



**WRONG—TOO MUCH CLEARING DEBRIS  
NOT REMOVED. ENEMY WILL AVOID**



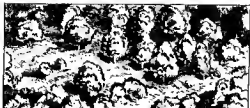
**RIGHT—ONLY UNDERBRUSH AND TREES DIRECTLY  
IN LINE OF FIRE REMOVED. ENEMY SURPRISED**

*Figure 43. Clearing fire lanes.*

scrap canvas or burlap. Such a position gives you excellent protection against the blast, heat, radiation, and fallout of a nuclear explosion. This position also protects you from spray or droplets during a chemical attack; however, the protective mask must be used during and after such an attack. When the attack comes, sit down in your foxhole and keep your face down. Remain in that position for several minutes afterwards. However, you must realize an enemy attack will frequently follow a CBR attack and you must be prepared to repel such an attack.

*b. The Protective Qualities of Clothing.*

(1) Any type of clothing gives you some protection during a



ORIGINAL TERRAIN



WRONG—AFTER IMPROPER CLEARING



RIGHT—AFTER PROPER CLEARING

*Figure 44. Clearing fields of fire.*

radiological attack. If possible, cover yourself completely with your poncho or shelter half.

- (2) Field uniforms can be chemically treated to protect you from vapors and fine droplets of blister agents. This is called impregnating (soaking with a protective material). However, impregnated clothing does not offer protection against chemical agents in a liquid state. Any drops of nerve or blister agents quickly go through impregnated clothing. A protective vesicant leather dressing ("dubbing") will be issued which helps make boots resistant to liquid chemical agents. This dubbing does not destroy or neutralize liquid chemical agents—it only

delays their penetration of leather. During a chemical attack, crouch down and cover yourself completely with whatever is available; use your mask. When walking through areas where drops of chemical agents may have fallen on vegetation, wear your raincoat or poncho to prevent these drops from reaching your clothing.

c. *Using the Protective Mask.* Your protective mask is your most valuable item of defense during a CBR attack. If worn properly it protects your face, eyes, and lungs from all known chemical agents, radioactive dust during a nuclear attack, and biological agents during a biological attack. This mask is sturdy, but you can damage it by careless handling.

d. *Sanitation.* Should the enemy employ biological weapons, you can protect yourself somewhat by exercising good sanitation measures and practicing good personal hygiene.

e. *Training.* FM 21-40, FM 21-41, and FM 21-48 explain in detail all matters concerning your defense against chemical, biological, and radiological weapons, to include effects of nuclear weapons. Your CBR training teaches you about its effects, capabilities, and limitations. CBR training also teaches you the use and care of your protective equipment.

## 42. Enemy Propaganda

a. *What is Enemy Propaganda?* Enemy propaganda is information and ideas the enemy directs toward you with the intent of having you act in a way which will help him. The enemy says and writes things he hopes will cause you to be a less effective Soldier. This material is usually put out in leaflets dropped from aircraft or fired by enemy artillery into our areas, in radio broadcasts, in field public address systems beamed toward you, and in rumors started by enemy agents.

b. *Purpose.* The enemy uses propaganda to try to lower your morale and weaken your will to fight.

c. *Techniques.* The enemy uses many different propaganda techniques. He tries to convince you that unless you surrender you will be killed; and if you do surrender, you will be well treated. He tries to lower your morale and decrease your will to fight by telling you your leaders are incompetent, or the civilians at home have forgotten the Soldiers who are away on the fighting fronts. He starts rumors. You help his cause if you believe and spread these rumors. Some rumors are easy to believe because you want to believe they are true. For example; the enemy will start rumors that your unit is going to be relieved and sent home. If

you believe this rumor, your morale is lowered when you find it is not true. Other rumors are designed to create fear; still others attempt to create a feeling of hatred toward our allies or Soldiers of our own forces because of their race or creed.

*d. Defense.* When you are well-trained and confident of your own ability and that of your unit, you are a poor target for enemy propaganda. When you know the goals of your own country and those of the enemy and use your common sense and intelligence, you are able to detect the half-truths and lies in enemy propaganda. Do not spread rumors when you read or hear enemy propaganda; get the facts and do not jump to conclusions. An active interest in your unit information program helps you to defend yourself against enemy propaganda.

### Section III. HEALTH AND HYGIENE IN COMBAT

#### 43. Mental Attitude

The way you think affects the way you act. If you know your job, you act quickly and effectively. If you are uncertain or doubtful, you hesitate and may make wrong decisions. *Positive thinking is a necessity.* You must enter combat with absolute confidence in your own ability to fight, in the training you have received, and in the officers and noncommissioned officers who lead you. You will feel better, and your life in the Army will have a sense of real purpose if you realize your unit exists for the best cause in the world—to protect your country, your family, and yourself. Furthermore, you are a needed and valuable part of a team. Always ask yourself, "How can I help my team accomplish its mission?"

*a. Fear is a basic human emotion. It is both a mental and physical state. Fear is not shameful if you control it. It actually helps by making you more alert and more able to do your job. Fear makes the pupils of your eyes enlarge, increasing your field of vision and enabling you to detect movement more easily. In addition, your breathing and heart actions are stronger. These reactions prepare your body for greater exertion and provide strength when you are tired. When you feel fear, control it and use it to help you do your job.*

*b. Avoid letting your imagination run wild. Remember you are not alone. You are part of a team and there are other soldiers around you, even though you can not always see them. There are men on your right and on your left who know their jobs and who are helping you just as you are helping them.*



*Figure 45. Don't let your imagination run wild.*

c. Worry undermines the body, dulls the mind, and slows down thinking and learning. It adds to confusion and magnifies your troubles, causing you to imagine things which really do not exist. Your officers and noncommissioned officers will help you if you have problems which are troubling you.

d. You may be required to fight in any part of the world and in all types of terrain. Adjust your mind to accept conditions as you find them. Adapt yourself mentally and take prompt, positive action to overcome adverse conditions. You will find you can fight under almost any conditions.

#### 44. Physical Efficiency and Resistance to Disease

a. An athlete knows from experience he must keep his body in good shape. He avoids late hours and habits which will slow him down. He has pride in himself and his team. You must do the same. Your safety, your health, and your life depend on your physical condition.

b. Your body processes are sluggish and your reactions slower when you are tired. You are more susceptible to sickness. Avoid fatigue by taking advantage of your opportunities to rest. Do not wear clothing which binds or chafes the skin because it adds to fatigue and discomfort.

c. When you have the opportunity to rest, make yourself as comfortable as possible. If you sleep on the ground, smooth out the dirt and dig a small depression for your hips. If you sleep in a dug-in position, dig out enough soil so you can stretch your legs. Cramping interferes with circulation, causes sore muscles, and hinders the body rest processes.

d. Maintain peak efficiency by observing good eating habits. It is important to eat as nearly balanced meals as possible. If you do not feel like eating a whole meal, eat some of each item—part of the meat, part of the vegetables, and part of the bread. Keep your eating utensils and mess gear clean.

e. Heat your rations whenever possible; they will taste better.

#### 45. Body Care Under Varied Climatic Conditions

##### a. *Trench Foot and Immersion Foot.*

(1) In cold or wet weather, improper care of your feet may result in a condition known as trench foot or immersion foot. When the condition is mild, the feet are pale and look shriveled; later they lose all feeling. Still later, they swell and become very painful. This is the dangerous stage. Gangrene may result and require amputation of the toes or even the entire foot.

(2) To guard against trench foot and immersion foot, follow the simple rules listed below:

(a) Exercise your feet.

(b) Keep your feet as clean as possible.

(c) Keep your feet as dry as possible.

(d) Put on clean, dry socks as often as possible.

(e) Do not wear tight footwear or tight socks.

(f) Remove your footwear and massage your feet.

(3) It is especially important to exercise your feet in order to maintain circulation. When standing in mud for long





*Figure 46. Care for your feet.*

periods, wiggle your toes inside your shoes, rise on your toes, and bend and twist your ankles. Remove your shoes at least once a day and massage your feet carefully and gently to stimulate circulation. Use plenty of foot powder and put on dry socks. You can dry wet socks by carrying them underneath your shirt next to your underwear.

- (4) Do not stow circulation by cramming on extra socks or by wearing tight shoes. If your shoes feel tight, loosen the laces. Wear loose clothing around the knees and calves of your legs.
- (5) You cannot always keep your feet dry, but you can usually improve conditions. If it is necessary to stand for

a long time in a muddy foxhole, dig an extra deep sump hole at one side of your foxhole to help drain off water. Stones and logs in the bottom of the hole also help to keep you out of the mud. Change into dry shoes and socks every time you get the chance.

- (6) When you come into a heated shelter after a long period of standing in the cold or wet, keep your feet away from the source of heat until the circulation starts coming back. Too much heat applied too suddenly is dangerous because it causes a sudden enlarging of blood vessels and a rush of blood to tissues not ready to receive it.

*b. Frostbite.*

- (1) Frostbite or local freezing can be avoided by wearing warm and loose clothing and keeping dry. Proper foot-gear and mittens are especially important. If any part of your clothing becomes wet, dry or change it at once. You can get overheated and perspire in cold climates and this perspiration may later freeze inside your clothes. Avoid this by wearing lighter clothing when you are exerting yourself, or by opening your clothing to allow air to circulate and moisture to escape. Do not touch cold metal with your bare hands or lips. Skin immediately freezes to such surfaces. If the skin should adhere to a metal surface, release it by warming the metal. The skin will be damaged if forcibly separated from the metal.
- (2) If a part of your body gets frostbitten, it becomes grayish or white and loses feeling. Frequently there is no pain, so keep watching your face and hands and those of your companions for signs. The face, hands, and feet are the parts most frequently frostbitten.
- (3) To thaw a frostbitten part, put it next to a warm part of your own body or next to the warm part of someone else's body. For example, put your left hand under your right armpit and cover the part with extra clothing or blankets.
- (4) If pain becomes too severe while a part is thawing, slow the thawing by exposing the part to cool air.
- (5) Do not rub or bend a frostbitten part of the body. Do not rub it with snow or ice. Do not dip it into warm water or bring it close to a fire.

*c. Heat Cramps.* Heat cramps occur when you have been sweating a great deal and have not taken extra amounts of salt. Symp-

toms are muscle cramps, especially of the intestines, abdominal wall, arms, or legs. You may vomit and be very weak. Treatment is to give large amounts of salt water—two salt tablets per canteen.

*d. Heat Exhaustion.* Heat exhaustion is caused by excessive loss of water and salt by the body. This condition results from heavy sweating. Symptoms of heat exhaustion may be any, or a combination, of the following: paleness, dizziness, profuse sweating, faintness, cool, moist skin, or abdominal cramps and muscular cramps of the back, arms, or legs. Treatment is to move the patient to a cool place, remove outer clothing, elevate feet, move legs up and down or massage them, give two salt tablets or a quarter-teaspoon of salt with each canteen of water. Get medical aid for further treatment. You can usually avoid this condition by taking plenty of salt with your food or by adding salt tablets to your drinking water.

*e. Heatstroke.* Heatstroke, a very serious condition with a high death rate, is characterized by very high body temperature and unconsciousness. A stoppage of sweating and hot dry skin are warnings. The victim's skin takes on a bright pink color and he may become delirious. Lower his body temperature by using shade, removing his clothing, immersing him in or sprinkling him with cool or cold water, and fanning him with his shirt. *Get the aid of a medical officer immediately.*

#### 46. Body Cleanliness

*a.* You can keep well only by observing the basic rules of personal hygiene. Practice and correct thinking make these health rules habitual.

*b.* If possible, bathe your entire body at least once a week with soap and water. Pay particular attention to the groin and the area underneath the arms and be sure to rinse off the soap. When bath facilities are not available, take a sponge bath by using your helmet to hold the water.

*c.* If no bathing facilities are available, dry and scrub your body with a towel or with the old underwear when you change. Protect yourself against lice and other parasitic insects by dusting the seams of your clothing with issue insect powder.

*d.* Underclothing absorbs perspiration and oil from the body and soon loses its insulating qualities and needs to be changed. When wearing woolen underclothing, avoid frequent changes by wearing light, easily washed underclothing next to your skin.

*e.* Care of the feet is important to every soldier. Start every day with a clean pair of socks. Feet swell some during the day, particularly during a march, so do not crowd on extra socks. Wear

enough to be comfortable and to cushion the feet but not enough to cause tightness which cuts off circulation. Avoid wearing torn or poorly mended socks—they cause blisters. When changing socks, wipe each foot thoroughly with the top of the old sock, rubbing well between your toes; use foot powder and put on the fresh socks, smoothing out all wrinkles. When wearing more than one pair of socks, change the pair next to your skin. Always carry extra socks in the top of your pack where they can be slipped out without disturbing the entire pack.

f. If a blister develops and medical care is not available, you should—

(1) Wash the blister area.

(2) Open the blister by sticking it at the lower edge with a sterilized needle or knife point. A needle or knife point can be sterilized by heating with a match or cigarette lighter.

(3) Drain the liquid from under the skin.

(4) Cover with a band-aid or adhesive plaster.

g. Do not use ointments, salves, or medicines on your feet unless prescribed by a medical officer. Many commercially sold medicines tend to soften the skin or to increase sweating. Prevent corns and calluses by wearing properly fitted shoes; if you get a corn or callus, let an aidman treat it.

h. Athlete's foot is a condition of the feet caused by a fungus. This fungus grows best in warm and moist places such as your feet. You can prevent it from spreading by keeping your feet clean and using foot powder to help keep them dry.

i. Brush your teeth at least once a day. Salt from rations can be used if no tooth powder or paste is available. Brush with water alone if no cleanser is available. Carry your toothbrush with your minimum essential toilet articles.

j. Keep your hair clipped short to avoid picking up dirt and vermin. Short hair is sanitary and comfortable.

k. Use your training to do all you can to help yourself and your companions.

#### 47. Food Sources

Sanitary standards in many oversea areas are not as high as in the United States. Foods prepared and handled by natives, or purchased from open air markets, are particularly dangerous. They are loaded with disease germs, not only from handling by many people, but from contact with flies which have access to open air latrines. In many countries, human feces are used as garden

and field fertilizer. This practice spreads diseases. You usually suffer more from these diseases than the natives do because they are often immune to the local germs. The safest rule to follow is to eat and drink nothing except that which is issued to you or which has been investigated and approved for consumption.

#### 48. Water Conservation and Purification

a. Learn to use only the amount of water absolutely necessary for drinking, bathing, and cooking purposes. Water is essential to the continued effectiveness of your unit and must be conserved.

b. Contaminated water is one of the greatest threats to the health of a Soldier in the field. Water obtained from other than an approved source must be considered contaminated and must be purified before drinking. This may be done by using individual water purification tablets (iodine) in your canteen. Use one tablet if the water is clear, two tablets if it is dirty or colored; replace the canteen cap loosely to allow a little leakage. Wait 5 minutes, then shake your canteen thoroughly so a little water leaks out to disinfect the screw threads. Wait 10 minutes before drinking. If the water is very cold, wait 20 minutes. If water purification tablets are not available, water may be purified by boiling *vigorously* for 1 minute. If there is any danger that water has been contaminated by biological agents, it must be boiled for 15 minutes.

#### 49. Replenishing Salt and Body Fluids

The principal means of cooling the body is by sweating. To keep up an adequate production of sweat, you must drink plenty of water. However, profuse sweating takes large amounts of salt from the body, a chief cause of heat exhaustion and heat cramps. Take additional quantities of salt with your food and eat salt tablets to your drinking water.

#### 50. Waste Disposal

a. Tin cans cut tires, litter up an area, breed mosquitoes when full of water, and draw flies. Food scraps attract rats, roaches, and flies. Bury your waste when you finish eating. Sumps should be dug in areas occupied for extended periods. Do not ignore cleanliness just because you are leaving an area; protect the health of the troops who follow you into an area. You know how you feel when you have to move into a filthy area.

b. Of all types of waste, human waste is the most frequent conveyor of intestinal diseases; thus it is essential you always bury your feces. Dig a small hole if you are on a march or use a straddle trench or deep pit latrine in a temporary camp or bivouac.

## CHAPTER 4

### COMBAT INTELLIGENCE AND COUNTERINTELLIGENCE

---

#### Section I. GENERAL

##### 51. Definitions

a. *Combat intelligence* is that knowledge of the enemy, the weather, and the terrain which is used to plan and conduct tactical operations within a given area.

b. *Counterintelligence* (in combat) is all the measures and actions we take to detect, prevent, and neutralize espionage, sabotage, and subversion; and to keep the enemy from finding out where we are, what we are doing and planning to do, and how strong we are.



Figure 47. You can help.

## 52. Importance

a. The more we know about the enemy and the less he knows about us, the easier he is to defeat.

b. Your commander bases his tactical decisions on combat intelligence. Without *adequate* combat intelligence, he may be compared to a prizefighter entering the ring blindfolded. In any situation your commander must determine the best way to accomplish the mission. He considers his own troops, the enemy forces, the weather, and the terrain over which he must operate. Information about the enemy and the terrain he controls is the most difficult of all to obtain. You and your fellow Soldiers, by collecting and reporting this information, assist your commander in making his decisions (fig. 47).

c. When you prevent the enemy from obtaining information of our forces, you are helping to send him into the ring blindfolded.

## Section II. INFORMATION

### 53. Types

Information may be *positive* or *negative*.

a. *Positive* information concerns those things the enemy is doing.

b. *Negative* information concerns what the enemy is not doing. This may be just as important as what he is doing. For example, a slowing or stopping of activity in a previously active area could indicate massing of troops in another area.

### 54. Sources

Your commander obtains information from many collection agencies such as patrols, observation posts, aerial reconnaissance, and from higher headquarters. Those of you who are in frequent, direct contact with the enemy—on patrols and in observation posts—secure much information from the following sources:

a. *Enemy Personnel*—by capturing them whenever possible.

b. *Enemy Documents*—by picking them up or by searching enemy dead and enemy installations, and turning them in to your squad or platoon leader.

c. *Enemy Material*—by turning in or reporting its description and location to your squad or platoon leader.

d. *Enemy Activity*—by observing and reporting what the enemy does or fails to do—what, where, when.

## 55. Reports

Report all information as quickly, completely, and accurately as possible. Include **WHAT**, **WHERE**, and **WHEN**. An example of a report is—"Seven enemy Soldiers, traveling SW, crossed road on **BLACK RIDGE (223227)** at **211300 August**."

**WHAT?**—Seven enemy Soldiers, traveling SW, crossed road.

**WHERE?**—**BLACK RIDGE (223227)**.

**WHEN?**—**211300 August**.

(A good way to remember how and what to report about the enemy is to use the letters of the word **SALUTE**.)

**SIZE**

**ACTIVITY**

**LOCATION**

**UNIT**

**TIME**

**EQUIPMENT**

a. Oral reports are faster and allow questions to be asked and answered. They may be made in person, or by radio or telephone.

b. Written reports have the advantage of being delivered to the receiver exactly as prepared by the sender. Whenever possible, use a form such as shown in figure 48.

GROUND OBSERVER'S REPORT							
O.P. NO. <u>1</u>		LOCATION <u>BP14208420</u>		SERIAL NO. <u>6</u>			
UNIT <u>Co B</u>		FROM <u>0915</u>		TO <u>1200</u>			
OBSERVER <u>T. S. BLAZER, CM</u> IN CHARGE OF O.P.				DATE <u>12 Aug 65</u>			
MAP REF <u>MT 145000</u>							
ITEM NO	TIME	LOCATION		REFERENCE POINTS	OBJECT OBSERVED --- HOW MANY, WHAT DOING, WHAT KIND, DIRECTION OF MOVEMENT	REPORTED TO - SMOKE? WEAP?	OBSERVER'S NAME
		DEFLECTION MAGNETIC AZIMUTH	RANGE				
<u>1</u>	<u>0943</u>	<u>Mag Az</u> <u>10°</u>	<u>750</u>	<u>Small house</u>	<u>5 men passed W thru edge of woods</u>	<u>CO Co B at 0944</u>	<u>McLendon</u>
<u>2</u>	<u>1015</u>	<u>Mag Az</u> <u>359°</u>	<u>1000</u>	<u>RJ622</u>	<u>Enemy rifle fire from hill 10150849 estimate 8 rifles. Duration 5 minutes</u>	<u>CO Co B at 1018</u>	<u>Blazer</u>

Figure 48. An observer's report form.



STANDARD SHELLREP, BOMBREP, BOMBREP FORM (CIRCLE TYPE OF REPORT)		
A	FROM	
B	FOR USE OF	
C	NO OR GRID AZIMUTH, DIRECTION, FLASH OR SMOKE	
D	TIME FROM	
E	TIME TO	
F	AREA COVERED	
G	NO & NATURE OF MORTARS OR AIRCRAFT	
H	NATURE OF FIRE	
I	NO & TYPE SHELLS BOMBS	
J	TIME OF FLASH TO HARD	
K	DAMAGE (REMARKS)	

NOTE THIS REPORT IS SUBMITTED BY INDIVIDUALS AND UNITS  
OBSERVING OR RECEIVING ENEMY FIRE

Figure 49. A shell report (shellrep) form.

c. A *shell report* (shellrep) is a special type of report. It may be oral or written. It is used to report observations of enemy weapons. Use the form shown in figure 49 as a guide. Send in a shellrep even when the information is not complete.

d. Both oral and written reports may have with them maps, photos, overlays, sketches, captured documents, enemy material, or anything else which may assist in conveying the full meaning of the information being reported.

### Section III. PRODUCTION OF COMBAT INTELLIGENCE

#### 56. How Combat Intelligence is Produced

a. Battalions and larger units have an intelligence officer (S2 or G2) on the commander's staff. This officer plans for the collection of information, using all available agencies and sources. He records all information received and analyzes it for accuracy, value, meaning, and pertinence to his unit. When the intelligence officer has studied all information and determined how it can

affect the accomplishment of the unit's mission, the information becomes combat intelligence.

b. The intelligence officer uses the combat intelligence produced to inform the commander, the staff, and all units concerned of the weather, the terrain, and what the enemy is capable of doing which will affect the ability of your unit to accomplish its mission.

## Section IV. COUNTERINTELLIGENCE

### 57. Your Role

Your job is to prevent the enemy from obtaining information.

a. Practice the camouflage techniques you have been taught. If the enemy knows your location, he is at a disadvantage.

b. Report suspicious personnel such as natives loitering in your area.

c. Obey security regulations.

(1) Use proper radiotelephone procedure.

(2) Use the challenge and password properly.

(3) Turn in letters and pictures when required.

(4) Avoid keeping diaries in forward areas.

(5) Be careful to whom you talk about military affairs.

d. Obey censorship regulations. Do not use prearranged codes in an attempt to give information such as your area of operations, future missions, or unit identification. Any simple code you devise can easily be broken if your letter is intercepted by the enemy.

e. Abide by the Code of Conduct, if captured.

## Section V. PRISONERS OF WAR, DOCUMENTS, AND MATERIAL

### 58. Prisoners of War

The handling of prisoners of war is governed by international agreement (Geneva Convention Relative to the Treatment of Prisoners of War, 12 August 1949). They must be handled in accordance with these rules (fig. 50):

a. Search prisoners for weapons and documents as soon as you capture them. Take weapons to prevent resistance and take documents, except individual identification papers, to prevent the prisoners from destroying them. Prisoners from whom personal property is taken, including personal documents, should be given a written receipt for the property. Tag documents and other personal property taken so you know which prisoner had them.

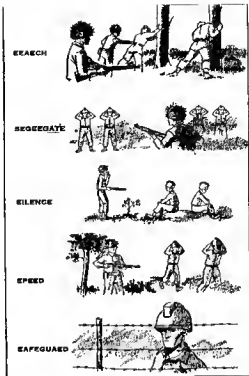


Figure 50. When you capture prisoners, remember the five S's.

*b. Segregate them into groups:* Officers, noncommissioned officers, privates, deserters, civilians, females, and political indoctrination personnel. This prevents the leaders from organizing for a mass escape and from making the rest of prisoners security-minded. Keep the prisoners segregated as you evacuate them to the rear.

*c. Silence is essential.* Do not allow prisoners to talk. This prevents them from planning escape and from cautioning each other on security.

*d. Speed prisoners to the rear.* The information they have does no good until obtained by an interrogator and processed.

c. *Safeguard* the prisoners as you take them to the rear. Make sure they arrive safely. **Do not allow anyone to abuse them, but do not allow anyone to give them cigarettes, food, or water.**

## 59. Documents

a. Documents taken from prisoners are tagged with the name of the prisoner, date, time, place of capture, and the unit making the capture. All documents are sent to the rear with the prisoner escort. Here, the prisoner is questioned about the information in the document.

b. Documents found on the ground, in old enemy command posts, or similar places are identified to show where and when they were found and the unit which found them. Tag these documents and give them to your squad or platoon leader. He gives them to the company commander who immediately sends them to the battalion intelligence officer. The intelligence officer of your unit takes from the documents the information he can use and forwards the documents to the division G2.

## 60. Material

a. Report any new type of weapon or equipment you find to your squad or platoon leader. If it is light enough to be carried and you are certain it is safe and not boobytrapped, take it to him and tell him where you got it. He will make sure it gets to the battalion S2. If you cannot carry the item, report it to your squad or platoon leader so he can notify the S2 about it. In that way, you are sure we learn of and perhaps use any new ideas the enemy has developed.

b. Report new weapons or equipment you observe. Make notes or sketches to help describe what you saw.

## 61. Ownership

a. Captured documents and material are the property of the United States. Your leaders will tell you when items can be kept as souvenirs.

b. Do not attempt to keep unauthorized items. They are needed to help your unit accomplish its mission.

## CHAPTER 5

### MESSAGES AND MESSENGERS

---

#### Section I. MESSAGES

##### 62. What is a Message?

A message is a thought or idea sent from one person to another. The form of a message depends on the method of transmission. It may be written or oral and delivered by foot messenger, or it may be sent over the telephone or radio.

##### 63. Preparing a Written Message

A well-written message is clear, complete, and concise. A message is clear if it is easily read and understood. A complete message answers the questions of WHAT, WHEN, and WHERE. A message should be written in the briefest manner possible, omitting words which do not add meaning. Figure 51 shows a well-written military message on a field message form. In writing messages—

a. Print the message plainly in block-type letters. Isolated letters (except single letter words, and the letter X when used as punctuation in the text of a message) are spelled out using the phonetic alphabet. For example, the letter Z is spelled out ZULU in figure 51.

b. Use only authorized abbreviations. If you are in doubt, do not use an abbreviation.

c. Always address a message to a commander.

d. Send the message by authority of a commander. (See OFFICIAL DESIGNATION OF SENDER line in figure 51.)

e. Assign the precedence according to the importance of the message in regard to the overall tactical situation.

f. Tactical messages are either classified or unclassified. You must be able to determine the appropriate classification from the text of your message. Place the security classification on the top and bottom of the message (fig. 51).

g. A classified message must be encrypted before it is transmitted over an electrical means of communication. However, if the tactical situation is such the enemy cannot act upon the information

SECURITY CLASSIFICATION IS PLACED JUST ABOVE AND JUST BELOW MESSAGE TEXT BY THE WRITER	4 DIGIT DATE TIME GROUP FOLLOWED BY ZONE SUFFIX (SEE MONTHS AND YEAR WHEN NECESSARY TO AVOID CONFUSION)
--	---

TO: _____	FROM: _____	OPERATIONAL PRIORITY: _____	PRIORITY: _____
MESSAGE SUBJECT TO BE TRANSMITTED			
NO. _____	CLASSIFICATION	DATE: 102318 Z	TIME: 7Z
TO: CO COA 87TH INF	BRIDGE DESTROYED AT SITE ALPHA X		
	USING ALTERNATE SITE X LEFT 2 EN		
	PRISONERS AT CHECK POINT ZULU		
	CLASSIFICATION		
PLAY LOR 100	PLAY COA 87TH INF		
SIGNATURE AND GRADE OF WRITER			

ABSTRACTED TO THE COMMANDER SENT FROM A COMMANDER

PRIORITY DESIGNATED BY THE WRITER

PUNCTUATION ISOLATED LETTERS (NOT ONE LETTER PER LINE)

Figure 51. Make messages clear, complete, concise.

contained in the message before the addressee, the message may be sent in the clear if authorized by the commander or his authorized representative.

h. Punctuation is omitted unless absolutely necessary to the clarity of the message. When punctuation must be used, draw the letter X between the lines on the message form.

i. The actual writer of the message signs his name and grade in the space labeled SIGNATURE AND GRADE OF WRITER.

j. Enter the date-time group on the date line immediately after signing the message. The first two digits are the day of the month. The last four digits are the time expressed in the 24-hour clock system. For example, 10 o'clock in the morning of 3 August 1965 (Greenwich time) would be shown as 031000 Z Aug 65. The last element of the date-time group is the time zone suffix of the area, which will have been told you previously.

k. Reread your message carefully. When possible, have someone else check it to see it is complete, easily understood, and answers the questions, *what*, *when*, and *where*.

l. Destroy the sheet of carbon paper by burning. When burning is impossible, tear the sheet of carbon paper into shreds and scatter them.

## Section II. MESSENGERS

### 64. Why Messengers are Important

Messengers are very important in lower units. They are often the only means available for sending maps and overlays. Messengers are selected for their intelligence, trustworthiness, and self-reliance. They are needed and used by all units from the smallest to the largest. Messengers have often delivered messages when all other means of communication have failed.

### 65. Equipment

Some units have personnel whose primary duty is to carry messages. However, you may be selected as a messenger because you are specially suited for a particular mission. Your compass and your individual weapon are standard equipment. Other equipment like a flashlight, map, message book, or transportation is provided by the person who sends you out.

### 66. Training

a. When assigned primary duty as a messenger, you should be given *additional* training in how to—

- (1) Deliver oral and written messages.
- (2) Travel over various kinds of terrain at prescribed rates of speed.
- (3) Use a compass for orientation or to follow a given azimuth.
- (4) Read maps and orient yourself by stars or the sun.
- (5) Select routes which provide the best cover and concealment consistent with the need for speed.
- (6) Recognize commanders and units with which your unit maintains communication.

b. If circumstances do not permit you to receive this training, you should train yourself as much as possible.

### 67. Double Messengers

Double messengers may be used when the message to be delivered is of vital importance or when the route to be traveled is difficult or exposes the messenger to enemy fire. For details, see FM 7-24.

### 68. Messenger Briefing

a. When you are given a message to deliver, the dispatching

officer or noncommissioned officer should provide the following information:

- (1) Name and location of the headquarters or person to whom the message is to be delivered.
- (2) Route to follow.
- (3) Danger points to avoid.
- (4) Speed required.
- (5) Whether an answer is required.
- (6) Where to report in case the message cannot be delivered.
- (7) Contents of the message, when the situation warrants.
- (8) Special instructions, if any.

b. If he does not include this information, be sure to ask for it.

c. The dispatching officer should also instruct you to report your destination to the nearest leader when passing an outpost or position established by a security detachment. This leader will orient and assist you if necessary.

#### 69. What to do When Carrying Messages

When there is danger of meeting the enemy, travel by covered and concealed routes. If you are to travel over difficult routes at night, reconnoiter them during the day when possible. When you are approaching or leaving command posts, be particularly careful to avoid disclosing the location. Strive to give prompt delivery and to prevent needless exposure. Ask directions from troops you meet. When instructed to show unsealed messages to communiers en route, ask them to sign the message after reading. When in immediate danger of capture, memorize your message and destroy it.

#### 70. How to Deliver an Oral Message

a. When time permits, messages are written. Oral messages, however, may often be necessary in fast-moving situations. They are kept short and simple to prevent errors in transmission. When receiving an oral message, repeat it to the sender and then memorize it (fig. 52). Deliver it word for word.

b. At times you may be asked to take a reply or other message for your own unit. This is part of your job unless you have been instructed not to delay your return for any reason.

c. When you cannot find a headquarters, message center, or an addressee without undue loss of time, report to the nearest command post and ask for assistance and instructions.





*Figure 52. A messenger repeats an oral message to the receiver.*

d. Deliver your message to the addressee or to an authorized representative of the commanding officer. Stop at the unit's message center to determine the location of the addressee or authorized representative; then deliver the message to him personally and obtain a receipt. Before leaving the unit headquarters or command post, stop at the message center and ask if there are any messages for your unit.

e. If your transportation is disabled, continue to your destination in the most practicable manner. It may be advisable to report to the nearest headquarters for assistance and instructions. If for any reason you are unable to continue on your mission, turn over your messages and instructions to any reliable person you meet. Check to satisfy yourself the person is reliable and can deliver your message. Keep a record of the person, time, and place; and at the first opportunity give this information to the sender.

### 71. Select Your Route With Care

The route over which you are to travel is usually selected by the officer or noncommissioned officer in charge. Plan an alternate route to follow in case your primary route cannot be used. If it is an unfamiliar route, ask for a map or sketch to supplement oral instructions. Take advantage of signs or guides and verify the route by asking questions (par. 16).

## CHAPTER 6

### SURVIVAL ON THE NUCLEAR BATTLEFIELD

---

#### 72. General

a. The use of nuclear weapons does not change your mission—it is always to defeat the enemy. Nuclear weapons should be respected, but not feared. You must be well trained and well disciplined in order to protect yourself and your equipment and continue your job.

b. There are rules to follow to enable you to continue to be effective. Remember, however, these rules do not replace clear thinking and the use of good common sense.

#### 73. Nature of Nuclear Explosions

a. The explosion of a nuclear weapon, like the explosion of ordinary bombs and shells, causes damage by heat and blast. In addition, there is a third danger—radiation.

b. While a nuclear weapon has more destructive power than has ever before been found in a single package, it is just another way of causing an explosion and has definite limitations. Not even the largest nuclear weapons can blow the earth apart. The heat and blast effects of nuclear weapons are similar to those of ordinary bombs and shells, but are greatly magnified. Radiation, therefore, is the only way in which nuclear explosions differ from ordinary explosions. The amount and type of radiation is determined by the size of the weapon and type of burst.

#### 74. Effects of Nuclear Explosions

a. Blast effects are caused by violent changes in pressure at the point of explosion. A pressure or blast wave moves out from the center of the explosion. It is like a very strong and very sudden wind.

b. Thermal radiation (heat and light) effects are due to the fireball formed. It is hotter than the surface of the sun but does not last long—several seconds.

c. Nuclear radiation effects are caused by two types of radiation.

- (1) *Initial radiation* is the nuclear radiation emitted by a nuclear explosion within 1 minute after the burst. It travels at about the speed of light, essentially along straight lines, and has a very high penetrating power.
- (2) *Residual (lingering) radiation* is the nuclear radiation emitted later than 1 minute after the burst. It comes from the radioactive materials originally in a nuclear weapon or from normally nonradioactive materials (such as soil or equipment) which have been made radioactive by the nuclear reaction.
  - (a) When a nuclear weapon is detonated, radiation from the fireball may cause some substances in the soil and some items of equipment to become and remain radioactive. This type of residual (lingering) radiation is called *induced radiation*.
  - (b) When a nuclear explosion occurs under, at, or near the surface, large quantities of earth are thrown up, mixing with the fireball. The mass thrown up contains radioactive particles of the weapon and particles of soil made radioactive by induced radiation. These particles gradually fall to the earth. This is *fallout*.

## 75. Types of Burst

a. An *airburst* is an explosion in which the fireball does not touch the ground. Blast, heat, and initial radiation are produced. Residual radiation may be produced if the fireball is close to the ground (low airburst).

b. A *surface burst* is an explosion in which the fireball touches the ground. It produces a crater, and blast, heat, initial, and residual radiation.

c. A *subsurface burst* is an explosion with its center beneath the surface. Some of the fireball may appear above the surface. A crater and fallout are produced. Other effects (blast, heat, initial radiation) vary in production and degree according to size of weapon, depth of detonation, and whether detonated underground or underwater.

## 76. Types of Injuries

Injuries from nuclear explosions are caused by three effects—blast, heat and nuclear radiation.

a. *Blast injuries* are caused by the strong pressure wave of the explosion. Most injuries directly caused by blast are sustained

which personnel are picked up and thrown by the blast, receiving injuries upon landing. *Indirect blast injuries* are sustained when—

- (1) Flying debris or equipment hits personnel (missile effect).
- (2) Foxholes or bunkers collapse on personnel.
- (3) Buildings collapse or walls are blown down on personnel.

*b. Thermal radiation injuries* are caused by the tremendous heat and light produced by a nuclear explosion.

- (1) Heat from the explosion produces injuries varying from the equivalent of mild sunburn to death. It may set buildings, forests, and equipment on fire.
- (2) Light from the explosion (brighter than the sun) may dazzle you, as does the light from a camera flashbulb. Dazzle from a daylight burst does not last more than about five minutes. Dazzle from a night burst lasts about 10 minutes if you are facing in the direction of the burst, and about 3 minutes if you are facing away from the burst. However, loss of night vision may be complete and readaption required (par. 33). Permanent eye injury may result if your eyes are focused directly on the fireball.

*c. Nuclear radiation injuries* are caused by penetrating rays from initial or residual radiation or both. The effect radiation may have on you depends on several factors, including—

- (1) Total amount of radiation received.
- (2) Previous radiation damage to your body which it has not repaired.
- (3) Length of time during which radiation is received.
- (4) Other injuries received at the same time as exposure to radiation.
- (5) Amount of body surface exposed to radiation.
- (6) Your general physical condition.

## 77. Protective Measures

There are phases of individual measures in nuclear explosions—BEFORE, DURING, and AFTER the explosion. Your unit will have a standard operating procedure (SOP) covering such procedures as the use of protective equipment, first aid, firefighting, reorganization, marking of contaminated areas, and decontamination. Know and follow your unit SOP. In addition, remember these general procedures:

a. *Before the Explosion.* If you have warning of a nuclear explosion, and available time and the tactical situation permit:

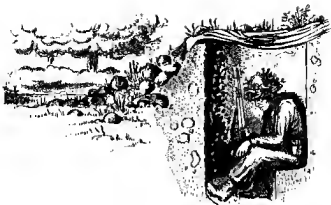
- (1) Improve your position. Dig deeper and cover your foxhole. Even your shelter half, covering the top of your foxhole, helps protect you. A poncho should not be used because it may get too hot, melt, and cause burns. Revet your position, if possible. See paragraphs 40 and 41.
- (2) If you do not have time to prepare a good position, dig a shallow trench (fig. 35) deep enough to have your body below the surface of the ground. Cover it with your shelter half.
- (3) Wear your helmet and keep your face down.

b. *During the Explosion.*

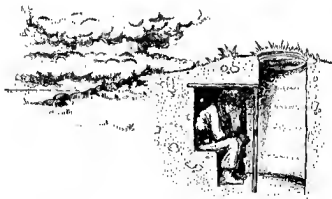
- (1) Crouch low in your foxhole with your head down (figs. 53 and 54), or lie flat in your trench with your shelter half over you.
- (2) If you are in the open, try to get into a nearby ditch or behind a wall, but do not try to get to shelter if it is more than a few meters away (figs. 55, 56, and 57).
- (3) If no shelter is available, turn your back to the explosion and drop flat on your stomach (fig. 58).
- (4) Do not look at the explosion. The brilliant flash will cause temporary blindness and may cause permanent eye damage.
- (5) Stay where you are until the blast wave passes. By this time, the greatest danger from heat, initial radiation, and flying debris will be over.

c. *After the Explosion.*

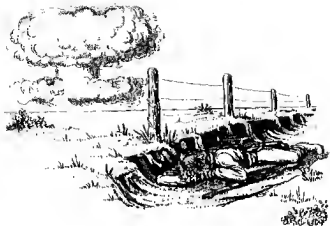
- (1) Fallout may be a danger to you. Consistent with your mission—
  - (a) Keep under cover until fallout has stopped.
  - (b) Brush the dust from your clothing. Scrape up and throw out any dirt or other material which has fallen into your foxhole. Dig out dirt and pile it several centimeters deep for at least 1 meter around the hole.
  - (c) Clean your equipment as well as available material permits.
  - (d) Render assistance to others as much as possible.
- (2) Be prepared to continue your mission. The enemy can be expected to follow up a nuclear explosion to take advantage of any resulting damage and confusion. Stay in your position to repel an attack.



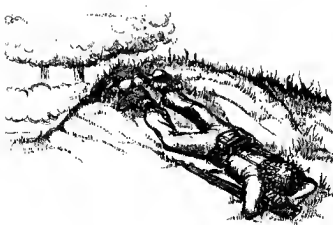
*Figure 53. Ordinary foxholes dug deep give good protection if covered.*



*Figure 54. Revetted foxholes are excellent protection against all effects.*

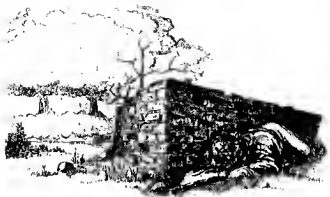


*Figure 55. Ditches provide some protection.*



*Figure 56. Small rises provide some protection.*





*Figure 57. Walls provide some protection.*



*Figure 58. If caught in the open, drop flat.*

## 78. Leadership

A nuclear explosion may cause heavy casualties among your leaders and may even completely destroy your unit's chain of command. You must be ready to assume a leadership role without hesitation and accomplish new responsibilities.

## 79. Friendly Nuclear Weapons

We may use nuclear weapons close to our areas. If used close enough to be a danger, you will be warned and instructed on precautions to take. The individual protective measures discussed in previous paragraphs are important in a situation of this kind.

## 80. Contaminated Areas

You may be required to occupy a contaminated (radioactive) area. If so, take the following actions:

a. Dig foxholes quickly.

b. Scrape dirt from around the edge of your foxhole for at least one meter (par. 77), and scatter dirt around the foxhole for ten meters.

## 81. Contaminated Equipment

Trained personnel in your unit will use instruments to test equipment and supplies for contamination. If instruments are lacking, the urgency of the situation dictates whether equipment is used without being tested. Generally, equipment not damaged by the explosion is safe to use. Washing or brushing will usually make contaminated equipment safe to operate.

## CHAPTER 7

### SURVIVAL, EVASION, AND ESCAPE

---

#### 82. General

a. Units are always vulnerable to being isolated and cut off from friendly forces by enemy action. You may be a member of a unit which finds itself cut off and isolated in the enemy area.

b. As a member of a patrol operating in an enemy area, you may become separated from your patrol and find yourself alone, or with a small group.

c. When such a situation occurs, your mission, or the unit's mission, becomes that of getting back to friendly forces.

#### 83. Your Problems

If cut off in an enemy area, you have these major problems—

AVOIDING THE ENEMY

LIVING IN THE FIELD WITH LIMITED EQUIPMENT

GETTING BACK TO FRIENDLY FORCES

If you are captured, you also have the problem of—

ESCAPING FROM THE ENEMY

#### 84. Explanation of Terms

a. *Survival* is living through a period of hardship while you are evading or during the time you are a prisoner.

b. *Evasion* is the action you take when cut off in an enemy area to stay out of the hands of the enemy and to get back to your own unit.

c. *Escape* is the action you take to get away from the enemy if captured.

d. *The Code of Conduct* prescribes the manner in which every member of the United States Armed Forces must conduct himself when faced with the possibility of capture or if actually captured.

#### 85. Survival

Living in the field with limited equipment requires a thorough knowledge of the techniques of living off the land and taking care of yourself. See FM 21-76.

## 86. Evasion

When a unit is isolated, five courses of action which may enable the group or its individual members to avoid capture and rejoin friendly forces are:

a. *Defense of Present Position.* This course of action might be adopted when a unit occupies good defensive terrain and early relief by friendly forces is probable.

b. *Breakout to Areas Under Friendly Control.* This action may be possible when relatively weak enemy forces are between you and friendly areas.

c. *Evasion.* This course of action may be considered in two ways:

- (1) *By unit*—a small unit may be able to return to friendly areas by carefully avoiding contact with the enemy.
- (2) *By infiltration*—small groups may be able to infiltrate to friendly areas. Generally, this is the least desirable. It means loss of unit integrity and requires a high degree of training, aggressiveness, common sense, and a good physical condition.

d. *Deeper Penetration to Conduct Guerrilla Operations.* This is primarily a short term operation, not to be confused with activities of special forces. This course of action might be adopted when enemy rear areas are lightly held, or when dependable information indicates a good possibility of linking up with organized guerrillas.

e. *Combination of Any of the Above.* An example might be defense of your position until nightfall, then evading by infiltration.

## 87. Escape

a. If captured, make your escape early. You will never be in any better physical condition to escape than you are at the moment you are captured. Prison rations are barely enough to sustain life, certainly not enough to build up a reserve of energy. The physical treatment, medical care, and rations of prison life soon show their effects in moral and physical weakness, night blindness, and loss of coordination and reasoning power. There are other reasons for making your escape early. The enemy on the battlefield is confused. Your friendly artillery fire or air strikes may give you a chance to get away. The first guards you will have are not as well trained in handling prisoners as guards farther back. They may even be walking wounded who are worried about their own condition. You know something about the terrain where you are captured and you know the approximate location of friendly

units. Several days later and many kilometers away, you may be in strange territory.

*b.* The exact way you make your escape depends on what you can think of to fit the particular situation. The only general rules are to make an early escape and do it when the enemy's attention is distracted.

*c.* Escape from a prison camp is much more difficult and requires more detailed planning. It must be organized, equipped, and supported as any other military operation.

*d.* It may not be easy to contact friendly units, even when you know where they are. Approach the problem as you would if you were a member of a lost patrol. Time your movements so you pass through the enemy forward areas at night and be between the enemy and friendly units at dawn. A good plan is to find a ditch or shellhole where you have cover from both friendly and enemy fire. Attract the attention of the friendly forces by waving a white cloth, shouting, exposing a panel or some other method. This alerts friendly forces, and they are prepared to accept any small group which appears willing to surrender or regain contact. Alerted, they are not so likely to shoot you on sight.

## **88. Your Conduct**

*a.* The Code of Conduct governs your actions at all times. You never surrender of your own free will, and you never surrender men under your command while they still have the means to resist.

*b.* If captured, continue to resist in every way possible; make every effort to escape and to help others escape. Do not accept special favors from the enemy. Do not give your word not to escape. Give no information and do nothing which will harm a fellow prisoner. Give only your name, rank, service number, and date of birth. Evade answering any other questions. It is your duty to resist the enemy in every way—to escape and to continue to fight.

## **89. You Need All Your Other Training**

Successful survival, evasion, and escape require a firm determination to avoid capture, to survive and resist if captured, and to make every effort to escape if captured. Knowledge of a few specific techniques improves your chances, but most of the training you need is included in other phases of the combat training of the Individual Soldier. You need to use all your other training in the use of cover, concealment, and camouflage materials; stay

and night movement techniques; maintenance of direction; security; passing of obstacles; the use of silent weapons; health measures; physical conditioning; and patrolling. These are all basic to survival, evasion, and escape. Your training prepares you to conduct yourself in a manner which will reflect credit on yourself and the United States of America. See FM's 21-77 and 21-77A.

## CHAPTER 8

### THE SNIPER AND INFRARED EQUIPMENT

---

#### Section I. THE SNIPER

#### 90. What is a Sniper?

A sniper is an expert rifleman trained in the techniques of the individual Soldier and assigned the mission of sniping. To be selected for sniper training, you need many skills. A sniper is a physically and mentally hardened expert rifleman who must be able to—

- a. Estimate ranges.
- b. Search areas.
- c. Locate and identify sounds.
- d. Use cover, concealment, and camouflage.
- e. Use maps, sketches, aerial photographs, and the compass.
- f. Recognize enemy personnel and equipment quickly.
- g. Move without detection.
- h. Endure long periods of waiting.

#### 91. Your Mission as a Sniper

a. Your mission as a sniper is to shoot key enemy personnel—leaders, gunners of crew-served or automatic weapons, communication personnel, observers, and enemy snipers. In the absence of these priority targets, fire on any personnel who expose themselves.

b. In addition to your sniping mission, you get information for your intelligence officer. In constant search for targets, you become familiar with the enemy terrain and report enemy activities which you observe.

#### 92. Sniper Selection and Training

Commanders select snipers from outstanding riflemen in their units. Snipers must be trained in the maintenance and operation of electronic night firing and viewing devices and other points of specific emphasis as a commander deems necessary or as time permits.

### 93. The Sniper's Equipment

The individual sniper carries only the equipment necessary for his mission. Besides his weapon, he may need a sniperscope, infrared weapon sight, binoculars, watch, compass, camouflage clothing, or a metascope.

### 94. Employment of Snipers

a. *Planning for Their Use.* Plans must be laid to properly locate individual snipers or sniper teams. Primary and alternate positions must be prepared and camouflaged to preserve the natural appearance of the terrain. Other troops in the area must avoid these positions. The use of snipers should be incorporated into the tactical plan of the unit commander. Special provision must be made for the sniper's rest and recuperation after strenuous tours of duty.

b. *Sniper Teams.* Snipers are best employed in pairs, particularly when operating from a stationary post. Remaining in one position for long periods of time and the constant use of binoculars, places a heavy strain on one man. By working in pairs, snipers are able to alternate duties; thus keeping their post in continuous operation. One observes and estimates range while the other fires. The first shot should be a hit.

c. *Individual Snipers.* The individual sniper can often cover a large area by moving from one position to another. Single snipers are employed when two might be detected. In this case, the single sniper moves from one firing position to another as often as the search for worthwhile targets and good fields of fire require. He coordinates with the troops in each area so they may point out targets and know where he is operating.

d. *Attached Snipers.* Snipers from reserve units may be attached to companies in a battle position.

### 95. Selecting Your Sniping Post

A sniping post may be elaborate or simple. It is normally a carefully selected position having a clear field of fire and cover and concealment, a concealed route of approach from the rear, and an inconspicuous appearance. The post must be within effective range of expected targets. When you are operating forward of your own positions, select a spot which has no covered approaches from the flanks, is not on the skyline, and will not silhouette you against a contrasting background. Do not occupy a prominent landmark—it generally draws fire.



## 96. How to Use Your Sniping Post

Conduct your operations from your sniping post with great care, adhering to all the principles of camouflage and concealment. Move slowly and cautiously. Quick, jerky movements attract attention. Change duties with your partner periodically, but do not change positions with him. Besides exposing parts of your body, there are other careless practices which may disclose your location—exposure of shiny or conspicuous equipment, reflection from field glasses, uncamouflaged face and hands, uncamouflaged helmet outline, noise, and smoking.

## 97. Snipers With Patrols and on Intelligence Missions

Snipers may accompany patrols whenever deemed necessary by the unit commander. They must be briefed and thoroughly familiar with all the details of the patrol. In event of enemy action, they move to a position from which they can assist in overruling the enemy. Snipers can aid in intelligence work and help locate targets for supporting weapons. Since they are usually well forward in an elevated position near the enemy, they are able to observe enemy movement. Intelligence officers should brief snipers prior to their occupation of a position and relieve them on their relief. When performing duties as a sniper, your observer role is secondary.

## Section II. INFRARED EQUIPMENT

### 98. The Metascope

There are two types of metascope. Both types are small and lightweight.

a. The *US F metascope* is a device for receiving infrared light and converting it to visible light (fig. 59).

b. The *image metascope* has the infrared detection capabilities of the US F metascope, and also provides the operator with a short-range viewing capability through the use of an infrared flashlight which is a part of the metascope (fig. 61).

### 99. Use

a. Both metasopes enable you to detect direct or reflected infrared light rays. The intensity of the light received is reduced by fog, snow, rain, or smoke as are visible light rays. Range also reduces intensity. Under ideal conditions, the maximum range for receiving direct rays is 500 meters from a flashlight and 5000 meters from the sniperscope lamp.

b. As a receiver, either metascope may be used to—

- (1) Receive prearranged code signals.
- (2) Identify and reach an assembly point, rendezvous point, landing zone, landing beach, or the like.
- (3) Guide convoys and patrols.
- (4) Detect enemy use of infrared devices.

c. The infrared light source of the image metascope also allows it to be used to—

- (1) Send prearranged code signals.
- (2) Observe areas without another infrared light source.

d. At close range, do not point the receiver directly at a constant light source as such a light causes unnecessary discharge of the metascope and hinders your vision.

### 100. Safety Precautions

a. The US/F metascope contains a small quantity of radium. To prevent unnecessary exposure of personnel and photographic



Figure 59. US/F metascope.



*Figure 60. Image microscope.*



*Figure 61. Sniper scope mounted on carbine.*

equipment, the following precautions are taken in using individual instruments.

- (1) Metascopes are issued to personnel just before an operation and they are returned for storage as soon as the operation is completed.
- (2) The instrument should be in direct contact with the operator only when he is using or carrying it. Although direct contact in the same spot of the operator's body for 140 consecutive hours involves no hazard, men who continuously handle or receive exposure to metascopes must take periodic medical examinations to determine if they are suffering from radium exposure.

b. Personnel more than two meters from a single instrument are not affected.

### 101. The Sniperscope

The sniperscope is a device for viewing persons and objects in the dark and for use as a night firing sight. It consists of an infrared light source, an electronic telescope mounted on a rifle, carbine, or other weapon, and a power source consisting of a powerpack and battery carried in a knapsack-type carrying case on the operator's back. It is capable of picking up a target at a 45° angle to the line of observation at a range of over 115 meters on a dark night. The sniperscope complete with power source, before mounting on a weapon, weighs approximately 25 pounds. Figure 61 shows the current model mounted on a carbine.

### 102. The Infrared Weapon Sight

The infrared weapon sight is the replacement item for the sniperscope. It is similar in purpose, use, and general design. It has the advantages of greater range and lighter weight (fig. 62).

### 103. Uses

The sniperscope and infrared weapon sight are generally used to—

- a. View persons and objects in the dark.
- b. Make it possible to fire on appropriate targets at night.
- c. Detect possible enemy use of similar devices.
- d. Send and receive predetermined code signals by using the light source to transmit and the telescope to receive. Other sources (flashlights with infrared filters) or receiving devices (image metascopes) may be used in conjunction with the sniperscope.



*Figure 62. Infrared weapon sight.*

This is particularly valuable to patrols moving in advance of forward positions.

*e. Transmit code messages.* With infrared equipment this is possible; however, it is slow and inaccurate without highly skilled operators to receive and send. Messages are transmitted by alternately covering and uncovering a constant light source rather than by switching the light source off and on. Prearranged messages of limited length are feasible. When receiving infrared signals at close ranges, care is taken not to point the receiver directly at a constant light source as the brightness of the resulting green light and a glow left in the sniper scope telescope hinders the operator's vision.

#### 104. Operation and Maintenance

Instruction in general operation and maintenance of infrared equipment is given in unit training. Technical details of operation and maintenance are given, as needed, by the agency providing the equipment.

#### 105. Employment

*a. General.* The employment of infrared equipment is a command decision. Unnecessary battlefield illumination must be suppressed, and all infrared radiation must be coordinated as to extent and direction within range of the receivers. Care must be taken to avoid detection by the enemy. When there are indications the enemy is not using infrared equipment, our forces may make unlimited tactical use of equipment. When the enemy is using infrared, the tactical plan should include provisions for issuing a higher proportion of viewing devices.

*b. Range.* The effective range of infrared equipment can be increased by applying the principles of cross-illumination from two or more light sources.

*c. Terrain Factors.* As an infrared equipment operator, you must carefully select positions with a minimum of vegetation or high grass in order to have a clear view in the probable direction of the enemy. In rough or heavily foliated terrain, you may have to clear grass and underbrush for sighting lanes. Reflection from nearby foliage, twigs, branches, or grass restricts the range and reduces your ability to see beyond the obstructions. You must look systematically for motionless and concealed objects as well as those in motion. Slowly scan an area and then rest your eyes. Closely investigate suspicious noises or objects by using a circular search pattern with the suspected object or noise as the center of the circle. Begin close up and gradually extend the search to maximum range. Scanning from several angles helps locate hidden objects or persons. Trees, bushes, and underbrush effectively screen personnel because infrared light is reflected from vegetation with such intensity that objects or persons behind it are not easily seen. However, movement of foliage and brush by concealed troops is easily detected. Cross-illumination, obtained by using two infrared sources, is effective for reducing glare from vegetation and for discovering concealed objects and personnel. For example, when an infrared beam is directed at right angles to the line of sight of the viewer, objects or persons hidden in brush appear as brighter objects against a darker background. For this reason, the equipment is most often used in pairs.

*d. Light and Atmospheric Conditions.* Infrared is most effective on clear, dark nights. Soft natural light—twilight, dawn, bright moonlight, or starlight—causes a hazy glow in the telescope and reduces the clarity of the image; but it does not prohibit use of the equipment. The blinding effect of artificial light from searchlights, flares, illuminating shells, or a concentration of mortar and artillery fires may be offset by not looking directly at these light sources or by rapidly closing your eyes against sudden flashes. Rain or fog reduces the effective range of infrared radiation just as it does ordinary light rays. Condensation on lenses may be reduced by applying antifog compound.

*e. In Defense.* Infrared devices are primarily security and defensive weapons. Sentries equipped with sniperscopes are better able to cover their areas of responsibility during hours of darkness. Sniperscope operators coordinate with weapon crews in the vicinity so they can designate targets to these weapons at night by the use of tracer.

*f. Patrolling.* All types of night patrols may use infrared equipment for detecting and bypassing or destroying enemy patrols. A small night patrol using a sniper scope may infiltrate enemy areas and establish a "looking and listening" post where it can accurately observe and count enemy traffic and movement. A cave or dugout may be investigated without entering by using infrared equipment. Ambushes can be made more effective by using the infrared devices to observe the party to be ambushed. The enemy party and its weapons can be reconnoitered and the most favorable moment to open fire can be chosen. The ambush can be effectively exploited by observing the defensive measures taken by the enemy after the action has begun.

*g. In Attack.* The weight and bulk of some infrared equipment limits its use under fire or in rapidly moving offensive operations. It is used, however, in holding attacks near enemy positions, for guiding a unit in the approach march, or for assaulting individual strong points, pillboxes, and caves. Attacks through minefields are preceded by metascope-equipped breaching parties guiding on infrared lamps set on the boundaries of the proposed gap. Dawn assaults on river lines are guided by markers set by infrared-equipped parties. A sniper scope-equipped man firing tracer ammunition can designate a target to a tank.



## CHAPTER 9

### ANTIGUERRILLA OPERATIONS

---

#### 106. General

Operations against guerrilla forces are characterized by aggressiveness, initiative, and offensive action to destroy the guerrilla. Each Soldier must be aware of the important role he will play when his unit engages in antiguerrilla warfare. Furthermore, he must understand how guerrilla forces operate and what measures must be taken to defeat them. Security measures, as discussed in this chapter, are used only to conserve combat strength and materiel for use in the offense.

#### 107. Characteristics of Guerrilla Operations

##### a. Guerrilla requisites for operation include—

- (1) *A base which provides dispersed and alternate facilities, security, discourages pursuit, offers adequate routes of entry and exit, provides routes to alternate bases, and is close to the area of operations.*
- (2) *A means of supply for food, weapons, ammunition, and equipment. These can be gained through civilians, an external sponsor, or by attacks on the enemy.*
- (3) *Intelligence which enables him to plan operations or evacuate his base when endangered. Common means of gaining this intelligence include friendly civilians, monitoring enemy communications, interrogation of opposing troops, surveillance, observation, and raids.*
- (4) *Communications to gain timely information and to disseminate instructions properly. Means normally employed include messengers, civilian radio equipment, and captured friendly equipment.*

b. Support by the local civilian population is necessary if guerrilla operations are to be successful. Sympathetic civilians provide guerrilla forces the following:

- (1) *Critical information about our fixed installations, units, and troop movements.*
- (2) *Food and medical supplies.*

- (3) A source for recruiting additional guerrillas.
- (4) A source of ammunition, equipment, and casualty bearers.
- (5) A source of labor for building footbridges, clearing trails, etc., or for removing sections of roads, rails, or bridges to isolate attacking units or to impede pursuit.

c. Necessary ammunition and weapons are procured by attacks on our own forces or by *supply* from an outside source such as a foreign country.

d. The guerrilla is a ruthless, cunning, and able fighter even though he may have limited and outdated equipment. Meager equipment and small numbers will often cause him to attack our weak and unprotected elements. He attacks at night, during periods of reduced visibility, and during periods of inclement weather—when security is most likely to be lax. Attacks conducted by the guerrilla are characterized by speed, surprise, and rapid withdrawal. He considers individuals or units resting or withdrawing as worthwhile targets.

### 108. Your Part in Antiguerilla Operations

a. *Self-Discipline.* Practicing self-discipline is an extremely important part of combatting the guerrilla. Almost every man is proud of the spiritual values, culture, and customs of his country. If you ignore or neglect the importance of these items, hatred of you and sympathy for the guerrilla will result. The guerrilla desires to spread resentment against you and your country. Disregarding these considerations will aid his effort. Self-discipline, combined with a firm, just, and understanding policy in dealing with civilians, will reduce chances for guerrilla success.

b. *Security.* The individual Soldier must be security conscious at all times. Two routine methods of providing this security are safeguarding information and guarding installations. Supply depots, communication centers, command posts, and other critical areas must be protected from guerrilla attack. Loose talk, as well as careless performance of duty, endangers the security of your installation and unit.

c. *Need for Intelligence.* The most successful operations against guerrilla forces will be those conducted on the basis of accurate and timely information. Your enemy is extremely elusive and requires finding and fixing if he is to be eliminated. It is mandatory that information be transmitted as quickly as possible. Any and all means of communication are used to insure the most rapid transmission of messages in keeping with necessary security.

Your normal duties include sentry duty, manning observation posts, and patrol operations. All actions seen or heard must be reported immediately. It is extremely important for the observer to report exactly what he sees—without exaggeration. Only if required to do so, should you interpret the activities seen or heard.

### 109. Tactical Operations Against the Guerrilla

Since the guerrilla requires a secure base, a means of supply, intelligence, and adequate communications, every effort is made to eliminate these essentials. Reconnaissance and combat patrols are organized to accomplish this mission. These follow the usual patrol organization, but additional emphasis is placed upon stealth, familiarity with terrain, protective measures, the ability to endure hardship, conduct of night operations, and mobility.

a. *Stealth.* All operations, unless it is desired to deceive the enemy, will have to function with great stealth if secrecy and surprise are to be attained. Guerrilla forces are so elusive that unless stealth is achieved, the force to be hit will have vanished by the time the final phase of the operation begins. The use of timely information will permit undetected movement through certain areas. The use of scout dog teams will help you to avoid undesired contact. Movement during periods of limited or reduced visibility will help attain the desired secrecy in movement. All patrols must maintain strict noise and light discipline.

b. *Familiarity With Terrain.* The guerrilla has the advantage of fighting on terrain with which he is thoroughly familiar. This gives him the advantage of knowing where to position a base, where to fight, routes of communication, and how to utilize natural obstacles. If you are going to be effective in fighting him, you too must study in detail the terrain on which operations will be conducted. Your becoming familiar with the terrain will reduce this advantage held by your opponent. Furthermore, the ability of all your personnel to *land navigate* is a necessity. Small units moving as a part of a larger force—or even independently—must be able to move accurately and quickly to insure actions against the enemy will be decisive.

c. *Protective Measures.* Patrol actions taken against guerrilla units require additional emphasis on protective measures. Since the guerrilla is a fast-moving, hard-hitting fighter, there is no single direction from which he may attack. This necessitates all-around security for the protection of planning areas, base camps, and break or rest areas. During movements to or while at the objective, friendly aircraft may be used to monitor movements of the enemy, locate specific targets, or relay messages. In addition,

the enemy will quickly detect your presence if the police of assembly or bivouac areas is inadequate.

*d. The Ability to Endure Hardship.* Great patience is required during the majority of your operations against guerrilla forces. Rarely will you be able to eliminate the opponent in a single decisive action. Relentless pressure must be maintained upon the enemy force. Therefore, small-scale missions will be undertaken whenever possible to destroy the guerrilla's capability to operate. You may be required to move great distances over all types of terrain and fight in any weather extreme. Fatigue and hunger may also become commonplace during antiguerrilla missions. Success will often become solely dependent upon your ability to overcome these hardships. The guerrilla is a tough, self-sacrificing fighter; through your training and willingness to endure hardships you can best him in his own type of warfare.

*e. Night Operations.*

- (1) You will be required to conduct missions at night because of the advantages gained in maintaining stealth, secrecy, and surprise.
- (2) Night operations will permit you to confuse and disorganize the enemy with relative ease.
- (3) You will have to know how to move silently, use your senses properly, and understand and apply night control measures. Those procedures previously discussed in this manual are applicable.
- (4) The experience required to move easily during the hours of darkness comes only through continuous night training.

*f. Mobility.* The ability of guerrilla forces to strike and disperse dictates the need for rapid movement. When combatting them, vehicles and aircraft provide some methods of achieving the necessary mobility. However, each Soldier must be capable of marching great distances in a short period of time. In fighting this type of warfare, physical and mental endurance are necessary qualities of every Soldier.

*g. Relationship With Civilians.* Guerrillas are dependent for support upon civilians in the area. Proper behavior toward civilians and any assistance or display of friendship for them may go far toward reducing their support for the guerrillas or even securing their assistance in providing information concerning the guerrillas.

**PART TWO**  
**PATROLLING**  
**CHAPTER 10**  
**GENERAL CONSIDERATIONS**

---

**Section I, GENERAL**

**110. Purpose and Scope**

This part of the manual is your guide in patrolling. It provides the information on patrolling that you need as a squad or platoon leader.

**111. A Patrol**

A patrol is a detachment sent out from a unit to perform a specific reconnaissance or combat mission.

**112. Increased Importance of Patrolling**

New weapons and equipment continually improve the commander's ability to obtain information of, and inflict damage on the enemy. The patrol, however, continues to increase in value because it is limited only by the ingenuity with which it is employed and the skill and aggressiveness of its members.

**113. Training in Patrolling**

a. Patrolling can be learned only through practical exercises in daylight and darkness, in all kinds of weather, and over varied terrain. Classroom instruction and map and sandtable exercises are valuable aids in teaching patrolling, but are not substitutes for actual work in the field.

b. Realistic situations must be used in patrolling exercises. The employment of Aggressor forces increases combat realism.

**114. Types of Patrols**

a. Patrols are classified by the type of mission performed. The two general classifications of patrols are reconnaissance and comb-

principal difference is in actions at the objective.

- (1) *Reconnaissance patrols* collect information or confirm information previously received.
- (2) *Combat patrols* provide security, harass, destroy, or capture enemy personnel, equipment, and installations.

b. Either type of patrol may be short-range or long-range. This further classification is established by the extent of the patrol's operation in distance or time, or both.

- (1) *Short-range patrols* operate in the dispatching unit's area of influence. They operate over relatively short distances and for relatively short periods.
- (2) *Long-range patrols* operate in the dispatching unit's area of influence and area of interest. They may be extended in time or distance, or both.

## Section II. LONG-RANGE PATROLS

### 115. Use of Long-Range Patrols

a. Long-range patrols are used for both reconnaissance and combat missions. They may enter and leave their objective areas by the same methods as short-range patrols. In addition to differences in extent (time and distance), they further differ from short-range patrols in that—

- (1) They usually are composed of men who have received additional training in patrolling and other areas indicated by the nature of the missions assigned.
- (2) They frequently are assigned a series of missions.

b. Cross-training of long-range patrol members is very important. Men must be able to perform dual functions so the loss of a few men will not make the patrol ineffective.

## Section III. ANTIGUERRILLA OPERATIONS

### 116. An Explanation of Antiguerilla Operations

a. Both short-range and long-range patrols perform reconnaissance and combat missions in antiguerilla operations. Successful execution of these missions requires consideration of the significant differences between conventional and guerrilla forces.

- (1) Guerrillas are difficult to identify because they frequently dress in civilian clothing. Although distinctive insignia

is sometimes worn, the weapon carried is often the only means of identification.

- (2) Guerrilla forces are elusive. They scatter when threatened, fade into the civilian population, and make decisive combat difficult or impossible.

b. Specially qualified persons may be of value to patrols engaged in antiguerrilla operations. For example:

- (1) Persons speaking the language of the area.
- (2) Persons native to the area who are sympathetic to our cause. They may be able to identify guerrillas, help locate guerrilla bases, and provide other timely information.

c. Rapid and reliable communications are especially important. Immediate transmission of important information permits prompt, decisive action against guerrilla forces.

d. Members of patrols engaged in antiguerrilla operations must be so well trained and well rehearsed in patrolling they can be organized and dispatched with minimum delay.

## CHAPTER 11

### PATROLLING RESPONSIBILITIES AND THEIR ACCOMPLISHMENT

---

#### 117. The Commander's Responsibilities

The commander is responsible for the patrolling effort of his organization, to include—

- a. Training in patrolling.
- b. Selection of patrol leaders.
- c. Formulation of patrol missions.
- d. Issuance of the patrol order.
- e. Coordination.
- f. Control measures.
- g. Support.
- h. Supervision.
- i. Debriefing.

#### 118. Command and Staff Action

The commander cannot *personally* accomplish all patrolling responsibilities. Many functions related to the patrolling effort are delegated to staff officers and subordinate commanders.

a. *Training in Patrolling.* The operations officer (S3) has staff responsibility for all training. In training in patrolling, he is assisted by the intelligence officer (S2). They work closely in preparing training programs and exercises in patrolling to insure proper training in the principles and techniques of patrolling.

b. *Selection of Patrol Leaders.* In training situations, the unit commander rotates duty as patrol leader among his NCO's and junior officers to insure that all are properly trained. In combat, the commander or leader (company, platoon, or squad) furnishing the patrol normally selects the patrol leader. He considers the experience and leadership abilities of available NCO's and officers. Consistent with assigned missions, he insures rotation of duty as patrol leader and avoids excessive use of a selected few.

c. *Formulation of Patrol Missions.*

- (1) The S2 plans and recommends missions for reconnaiss-



sance patrols; the S3 plans and recommends missions for combat patrols; but *only the commander* approves assignment of patrol missions. He considers the capabilities of each type of patrol.

(a) *Reconnaissance patrols obtain information by:*

1. *Point reconnaissance or surveillance of a point target or small area.*
2. *Area reconnaissance or surveillance of an extended target or area.*
3. *Route reconnaissance, which is a type of area reconnaissance where specific points along a designated route are reconnoitered. See FM 5-36 for technical details of route reconnaissance.*

(b) *Combat patrols aid the combat effort by—*

1. *Raids to destroy or capture personnel or equipment, destroy installations, or liberate personnel.*
2. *Ambush of enemy patrols, carrying parties, wire repair teams, convoys, and foot columns.*
3. *Economy of force missions to seize and hold critical areas such as bridges, hills, or road junctions.*
4. *Establishing or maintaining contact, or both, with friendly or enemy forces.*
5. *Providing security by preventing and detecting infiltration and preventing surprise and ambush.*

(2) Only one primary mission is assigned a patrol. Alternate and secondary missions may be assigned.

(3) The mission must be clearly stated, thoroughly understood, and within the capabilities of the patrol.

d. *Issuance of the Patrol Order.*

(1) The patrol leader is issued a patrol order providing all the instructions, information, and guidance needed to plan, prepare for, and accomplish the mission. The patrol order is a type of operation order and follows operation order format and sequence.

(2) Patrol orders are sometimes issued by the commander, but are usually issued by the staff officer responsible for the type of patrol (reconnaissance patrols—S2, combat patrols—S3).

(3) The S2 gives an intelligence briefing as a part of, or in addition to, all patrol orders.

(4) Other staff officers (S1, S4, FSC) may give briefings on matters related to their areas of responsibility.

*e. Coordination.*

- (1) Coordination is accomplished by the commander's staff and by the patrol leader. The three general areas of coordination are between the—
  - (a) Staff and staffs of other units.
  - (b) Staff and the patrol leader.
  - (c) Patrol leader and units or personnel immediately affected by the patrol's operation.
- (2) Coordination in these general areas frequently overlaps to insure coordination is continuous, complete, and properly accomplished. This is particularly true of long-range patrols since the dispatching unit's areas of influence and interest overlap those of other units.

*f. Control Measures.* The commander is limited in controlling a patrol and influencing its actions after it has departed. The degree of control and influence must be planned and included in the patrol order.

- (1) *Time of departure* may be stated in general terms, such as "Leave after dark," or "Leave before daylight." A specific time of departure may be given to prevent congestion in an area, reduce possibility of contact between patrols, and provide strict control.
- (2) *Time of return* is usually stated in general terms, but may be specific. Information secured by a reconnaissance patrol may lose its value if not received by a certain time, or future operations may hinge on the results of a combat patrol. Similarly, a patrol may be required to accomplish its mission at, or within, a certain time. For example, a patrol may be required to destroy a communications center at, or by, a certain time in order to assist a planned attack. When the commander places time restrictions on a patrol, he must provide for the possibility that, *despite its best efforts*, the patrol will not be able to accomplish the mission and comply with time restrictions. Normally, *accomplishment of the mission* has first priority, but determination of priority is the commander's responsibility. When he places time restrictions on a patrol, he must state which has priority—*accomplishment of the mission or meeting time limitations*.
- (3) *Checkpoints* are designated locations on the ground over or near which a patrol must pass. Normally, a report is made upon reaching the vicinity of a checkpoint. Check-

points inform the commander of the patrol's location at the time of the report.

- (4) *General route* may be defined through checkpoints. The exact route is seldom prescribed, except in route reconnaissance or when very close control of movement is desired.
- (5) *The communications plan* specifies reports to be made and methods of transmission. Radio is usually the best means, but field wire may be suitable in some situations when the distance is short. The type of radio used is determined by the distance the patrol is going, availability of radios and qualified operators, and method of movement (foot or vehicle).
  - (a) Simple prearranged codes and code words are used to reduce transmission time and decrease the possibility of compromising the mission.
  - (b) Pyrotechnics (flares or smoke) may also be used, but they increase possibility of detection.
  - (c) Prearranged code words or pyrotechnics may be used to indicate departure of friendly areas, arrival at checkpoints, accomplishment of mission, or other desired information.

*g. Support.*

- (1) The S3 arranges with the fire support coordinator (FSC) for effective supporting fires.
- (2) The supply officer (S4) provides equipment not available in the patrol's unit.
- (3) The S2 and S3 arrange for specially qualified personnel such as scout dog teams, demolitions specialists, and pathfinder or terminal guidance personnel.

*h. Supervision.* This is provided by all commanders and staff officers. They actively supervise all phases of patrol planning and preparation, giving patrols the benefit of their own training and experience.

*i. Debriefing.*

- (1) All patrols are debriefed on return by the S2 or his representative. The patrol report form shown in figure 63 is used to help insure complete debriefing. This form is standard among NATO countries.
- (2) Debriefing techniques vary. One effective method is for the patrol leader to give a narrative account of the patrol from departure to return. Each patrol member then contributes any additional information he has. The de-

PATROL REPORT	
DESCRIPTION OF FACTS	NOTE
TO:	
NAME:	
A. TIME AND COMPOSITION OF PATROL	
B. TASK	
C. TIME OF DEPARTURE	(DESCRIPTION OF THE TERRAIN - DRY, BRAMBY JUNGLE, THICKLY WOODED, HIGH BRUSH, ROCKS, DEPTHS OF RAYING AND SHAMS; CONDITION OF BRIDGES AS TO TYPE, AGE AND DEFENSE; EFFECT ON ARMED AND WHEELED VEHICLES.)
D. TYPE OF PATROL	
E. ROUTE (OUT AND BACK)	
F. TERRAIN:	
G. EVENTS	(GENERAL DISPOSITION, CONDITION OF DEFENSES, EQUIPMENT, WEAPONRY, ETC.; TIME, NORMAL EXACT LOCATION, MOVE MENTS AND ANY SHIRT IN CONNECTION THE ACTIVITY WAS OBSERVED; THE REASONS WHERE ACTIVITY OCCURRED.)
H. AND MAP CHARACTER	
I. MISCELLANEOUS INFORMATION	
J. PERSONS OF INTEREST WITH THE EVENT	(ARMED PERSONS AND EQUIPMENT TAKEN IDENTIFICATION; ARMED CASUALTIES CAPTURED DOCUMENTS AND EQUIPMENT.)
K. CONDITION OF PATROL	
L. CONCLUSION AND RECOMMENDATIONS	(INCLUDES TO WHAT EXTENT THE TASK WAS ACCOMPLISHED AND RECOMMENDATIONS AS TO PATROL EQUIPMENT AND TACTICS.)
SIGNATURE, GRADE/RANK AND ORGANIZATION/UNIT/DATE OF PATROL LEADER	
M. ADDITIONAL REMARKS BY OBSERVERS	
SIGNATURE, GRADE/RANK AND ORGANIZATION/UNIT/DATE OF OBSERVERS	

Figure 43. Patrol report form.

briefers asks questions to secure desired information not covered.

- (3) Whatever the debriefing technique used, all patrol members have the opportunity to add to information given.

### 119. Patrolling is A Team Effort

The commander, subordinate commanders (including patrol leaders), and staff officers all work together to plan, prepare, and execute a vigorous, effective patrolling effort.

## CHAPTER 12

### PATROL ORGANIZATION

---

#### Section I. GENERAL

##### 120. Why A Patrol is Organized

A patrol is organized so the mission is accomplished in the most efficient manner possible. Proper organization assists in control and effective use of time, equipment, subordinate leaders, and other patrol members.

##### 121. Steps in Organization

There are two steps in organizing a patrol—general organization and special organization. General organization is organization into *elements* and establishment of a *patrol headquarters*.

a. *Elements* are the major subdivisions of the patrol. They are determined by the nature of the mission—reconnaissance or combat.

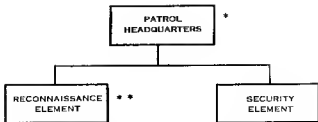
b. *Patrol headquarters* is composed of the patrol leader and the personnel providing general support for the patrol, such as a scout dog team, forward observer, medical aidman, and radio operator. The patrol leader may perform in a dual capacity. For example, in a small reconnaissance patrol, the patrol leader usually leads the reconnaissance element; in a small combat patrol, he may also command the assault element. Otherwise, personnel comprising patrol headquarters are not normally assigned specific duties with an element. When personnel who would normally comprise a patrol headquarters perform specific duties with an element, they are assigned to that element and no *separate* patrol headquarters is organized.

#### Section II. GENERAL ORGANIZATION

##### 122. Reconnaissance Patrols

A *reconnaissance patrol* is organized into two elements.

a. The *reconnaissance element* reconnoiters or maintains surveillance over the objective.



\* MAY CONSIST OF ONLY THE PATROL LEADER WHO ALSO PARTICIPATES IN THE RECONNAISSANCE.

\*\* MAY CONSIST OF ONLY ONE RECONNAISSANCE TEAM.

Figure 44. General organization of a reconnaissance patrol.

b. The *security element* secures the objective rallying point, gives early warning of enemy approach into the objective area, and protects the reconnaissance element.

c. A reconnaissance patrol does not usually have a separate patrol headquarters.

### 123. Combat Patrols

A *combat patrol* is organized into two elements, and usually a separate patrol headquarters.

a. The *assault element* engages the enemy at the objective by fire or maneuver (such as an assault team and a support team) or operates in the immediate area of the objective (such as demolition teams, search teams, prisoner teams).

b. The *security element* secures the objective rallying point and isolates the objective.

c. A separate patrol headquarters usually is organized.

d. A *support element* may be organized. For example, when two or more support teams are used, they usually are organized into a support element with an element leader rather than operating under the assault element leader.

## Section III. SPECIAL ORGANIZATION

### 124. Reconnaissance Patrols

a. The reconnaissance element is organized into the *reconnaissance*

since teams needed to reconnoiter or maintain surveillance over the objective.

- (1) A small patrol with a point reconnaissance or surveillance mission may have only one reconnaissance team (figs. 64 and 66).
- (2) A patrol with an area reconnaissance or surveillance mission usually has two or more reconnaissance teams.

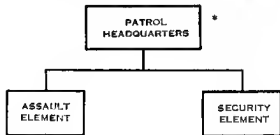
b. The security element is organized into the security teams needed to secure the objective rallying point, cover likely avenues of enemy approach, and protect the reconnaissance element.

c. A patrol with an area reconnaissance or surveillance mission may be organized into reconnaissance teams, each of which provides its own security. In such cases, no separate security element is organized (fig. 67).

## 125. Combat Patrols

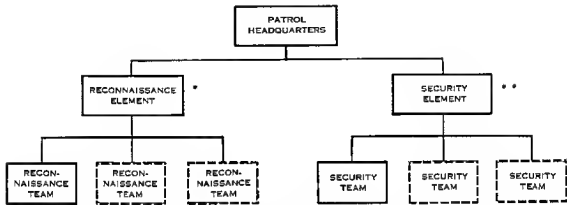
a. The assault element is organized into the assault team(s) and other teams required by planned actions at the objective, including but not limited to—

- (1) A support team, if suitable positions from which to fire are available. If positions are not available, needed fire-



\* CONSISTS OF THE PATROL LEADER AND PERSONNEL WHO DO NOT HAVE SPECIFIC DUTIES WITH EITHER ELEMENT

Figure 45. General organization of a combat patrol.



\* NUMBER OF TEAMS DEPENDS ON MISSION

\*\* NUMBER OF TEAMS DEPENDS ON AVENUES OF APPROACH

*Figure 66. An example of the special organization of a point reconnaissance patrol.*

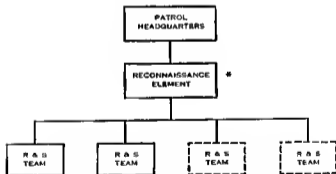


power is gained by adding more automatic weapons to the assault team(s).

- (2) *Demolition teams*, if demolitions are used.
  - (3) *Prisoner teams*, to secure prisoners.
  - (4) *Search teams*, to search dead, wounded, buildings and bunkers.
- b. The security element is organized into security teams which—
- (1) Secure the objective rallying point.
  - (2) Isolate the objective.
    - (a) Give early warning of enemy approach into the objective area.
    - (b) Block avenues of approach to prevent the enemy entering or escaping the objective area.
    - (c) Cover the patrol's movement to the objective rallying point.
- c. A separate patrol headquarters is usually organized (par. 121).

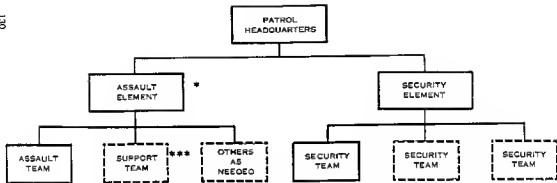
## 126. Summary

Organize the patrol so each individual, team, and element is assigned a specific task and there is no duplication of effort. When all individuals, teams, and elements accomplish their tasks, the patrol mission is accomplished.



\* NUMBER OF RECONNAISSANCE AND SECURITY TEAMS (EACH PROVIDING ITS OWN SECURITY) DEPENDS ON MISSION

Figure 67. An example of the special organization of an area reconnaissance patrol.



- \* TEAMS ARE ORGANIZED AS REQUIRED BY PLANNED ACTIONS AT OBJECTIVE.
- \*\* NUMBER OF TEAMS DEPENDS ON AVENUES OF APPROACH.
- \*\*\* USE OF SUPPORT TEAM(S) DEPENDS ON AVAILABILITY OF SUITABLE FIRING POSITIONS

*Figure 68. An example of the special organization of a combat patrol.*

## CHAPTER 13

### PLANNING AND PREPARING THE PATROL

---

#### Section I. GENERAL

##### 127. Receive The Mission

Listen carefully to the patrol order. Make notes for later use, but do not try to write down every word spoken. Be sure you clearly understand all of the instructions, information, and guidance given. After the order, ask questions on points that are not clear.

#### Section II. PLANNING STEPS

##### 128. Plan Use of Time

a. The first step in planning and preparing the patrol is to plan use of available time. You will be given as much time as possible to plan and prepare for the mission. As soon as the patrol order is completed and questions answered, mentally outline everything that must be done before departing the friendly area and allot time for each action. Start with the time of departure and work backward to the receipt of the patrol order. This technique is called "backward planning" and helps insure that you allow time for all necessary actions. Plan your time schedule around specified times, such as time of departure or time to make reconnaissance (figs. 69 and 70).

b. The sequence of other planning steps may vary according to such factors as availability of personnel for coordination, times at which reconnaissance can be made, and extent of coordination made by the commander.

##### 129. Study The Situation

Study the friendly and enemy situations for the effect that troop dispositions, strengths, and capabilities may have on your mission. These factors influence the patrol's route, size, organization, weapons, and equipment.

##### 130. Make A Map Study

Make a thorough map study of the terrain over which the patrol

#### PATROL PLANNING STEPS

1. Plan use of time.
2. Study situation.
3. Make map study.
4. Coordinate (continuous throughout).
5. Select men, weapons, and equipment.
6. Issue warning order.
7. Make reconnaissance.
8. Complete detailed plans.
9. Issue patrol leader's order.
10. Inspect and rehearse.

Figure 49. Patrol planning steps.

will operate. Check the marginal data. If the map is old, features may have changed, especially manmade features.

a. The terrain in the vicinity of the objective determines the number of security teams needed, whether a support team can be used, the manner in which you will conduct your leader's reconnaissance, or the direction which you will assault. These factors influence the size and organization of the patrol.

b. The terrain over which you will pass en route to the objective also influences the size, organization, and equipment of the patrol. For example, you may need boats, extra men for boat crews, or ropes for crossing streams. The terrain also helps determine your organization for movement to and from the objective.

#### 131. Coordinate

a. Make all possible coordination before leaving the place you received the patrol order. Examples of coordination which must be made are—

- (1) *Movements in friendly areas.* Units in whose areas you will operate must be informed so the patrol will not be endangered or unnecessarily restricted.
- (2) *Departure and reentry of friendly areas.* Guides may be necessary, especially if you must pass friendly obstacles such as mines or wire.

- 1945 - - Depart friendly area.
- 1930 - 1945 Movement to departure area.
- 1815 - 1930 - Final inspection.
- 1845 - 1915 Night rehearsals.
- 1800 - 1845 - Day rehearsals.
- 1745 - 1800 - Inspection.
- 1700 - 1745 - Supper meal.
- 1630 - 1700 Issue patrol leader's order.
- 1530 - 1630 - Complete detailed plans.
- 1430 - 1530 - Make reconnaissance.
- 1415 - 1430 - Issue warning order.
- 1330 - 1415 - Preliminary planning.
  - Select men, weapons, and equipment.
  - Coordinate.
  - Make map study.
  - Study situation.
  - Plan use of time.
- 1330 - Patrol order received, questions answered.

Start with departure time and work backward to the patrol order, planning your time schedule around any times specified in the patrol order.

Figure 70. An example of a patrol leader's planned time schedule.

(3) *Fire support.* Remember the five ways fire support can assist.

- (a) Inflict casualties on the enemy.
- (b) Divert the enemy's attention.
- (c) Conceal your movements with smoke.
- (d) Provide illumination.
- (e) Help maintain direction or determine location.

b. You may coordinate in any of the three general areas of coordination (par. 118). This is determined by the commander. He may effect detailed coordination or may require this of you. For example, in a given situation, the commander may arrange for you to be guided to the point of departure without your having personally coordinated with any unit or position. In another situation, you may coordinate at the company CP, OP, platoon CP-OP, and the last position through or near which you pass.

c. Even though some coordination is made for you, you must double check to insure it is complete and that nothing is overlooked.

d. Remember that coordination is continuous throughout planning, preparation, and execution.

### 132. Select Men, Weapons, Equipment

a. *Patrol Members.* Selection is usually restricted to the squad or platoon you command. *Maintain fire team and squad integrity whenever possible; this helps to insure a smoothly operating patrol.* Do not hesitate to replace men who may interfere with the mission. For example, men with colds may endanger security by coughing; a man afflicted with night blindness is not suitable for a night patrol.

b. *Weapons.* You must ask yourself this question, "What do I need to do the job?" Of course, you must weigh the desirability of some weapons against the difficulty of transporting them. Only in rare cases is the bulk and weight of weapons and ammunition a decisive factor in their selection or rejection.

c. *Equipment.* There are five general purposes or areas for which you must choose equipment. Note that some equipment is used for more than one purpose or in more than one area.

- (1) *In the objective area.* This is the equipment with which you accomplish the mission. It includes such items as ammunition, demolitions, ropes to blind prisoners, binoculars, and flashlights.
- (2) *En route.* This equipment assists or enables you to reach your objective. It includes such items as maps, binoculars, compasses, boats, stream-crossing ropes, life preservers, flashlights, ammunition, and wire cutters.
- (3) *Control.* Whistles, pyrotechnics, radios, flashlights, and luminous tape assist in control en route and during actions at the objective.
- (4) *Water and food.* Every man normally carries a canteen of water. On a long patrol, each man may carry two canteens. Rations are usually carried if you expect to be gone during a normal mealtime. Consider aerial resupply of water and food for long patrols.
- (5) *Routine equipment.* This is the equipment normally carried by all patrols, or which is common to all patrol members. It includes the uniform to be worn and individual equipment to be carried. Normally, every man carries his poncho and at least one extra pair of socks. Gloves are carried, even in warm weather, to protect hands against thorns, rocks, and barbed wire.

### 133. Issue A Warning Order

The patrol needs time to prepare. As soon as possible, issue a

warning order to *all* patrol members, including attached personnel. If circumstances make it impractical to issue the warning order to all members, issue it to the element leaders. They, in turn, issue warning orders to their elements. The warning order consists of the following minimum items of information:

a. A brief statement of the situation to let them know what your unit and the enemy are doing.

b. Mission of the patrol. As nearly as practicable, give the mission exactly as you received it.

c. General instructions.

- (1) General and special organization. Assign general tasks to elements and teams. Remember that specific details of tasks are given in the patrol leader's order.
- (2) Uniform and equipment common to all. Specify camouflage measures to be taken and the identification to be carried.
- (3) Weapons, ammunition, and equipment. As far as practicable, assign these to elements and teams. Allow subordinate leaders to further assign to teams and individuals.
- (4) Who will accompany you on reconnaissance and who will supervise preparation during your absence.
- (5) Instructions for obtaining rations, water, weapons, ammunition, and equipment.
- (6) The chain of command. In small patrols (ten men or less), designate the place of every man. In larger patrols, designate the place of subordinate leaders. Require them to establish a chain of command within their elements and teams.
- (7) A time schedule for the patrol's guidance. At a minimum, include mealtimes and the time, place, and uniform for receiving your patrol leader's order.

#### 134. Make Reconnaissance

a. Make a reconnaissance while the patrol prepares. A visual reconnaissance provides much information you cannot get from a map.

b. Make an aerial reconnaissance if possible. Check the route you will follow; look for prominent terrain features and for signs of enemy activity.

c. If aerial reconnaissance is not possible, try to find a location from which you can observe and study the near terrain over which you will pass.

### 135. Complete Detailed Plans

You have received the patrol order, issued a warning order, and made a reconnaissance (if reconnaissance was possible). The patrol is preparing for the mission. You are now ready to plan in detail for the accomplishment of the mission (pars. 3, 4, and 5 of fig. 72).

a. *Specific Duties of Elements, Teams, and Individuals.* The warning order assigned tasks to elements, teams, and individuals. Now, assign *specific* duties to each. For example, where will each security team be positioned and what is its specific job?

b. *Route and Alternate Route of Return.*

- (1) Apply the principles discussed in paragraph 16 in selecting the patrol's route. Don't forget checkpoints, if any have been assigned (par. 118).
- (2) You normally return by the same route. However, you must plan an alternate route of return to use if the patrol was detected on the way to the objective, or if you have reason to believe it was detected. The alternate route must be far enough away from the primary route so the same enemy detecting the patrol along the primary route will not detect it along the alternate route. At night these routes may be very close together because

PATROL WARNING ORDER	
The patrol warning order consists of the following minimum items of information:	
a.	A brief statement of the enemy and friendly situation.
b.	Mission of the patrol.
c.	General instructions:
1.	General and special organization.
2.	Dress and equipment common to all, in particular identification and camouflage measures.
3.	Weapons, ammunition, and equipment the patrol will carry.
4.	Who will accompany patrol leader on reconnaissance and who will supervise patrol members' preparation during patrol leader's absence.
5.	Instructions for obtaining rations, water, weapons, ammunition, and equipment.
6.	The chain of command.
7.	A time schedule for the patrol's gallop. At a minimum, include meet times and the time, place, and uniform for receiving the patrol leader's order.

Figure 71. Patrol warning order format.



of limited visibility, but during daylight a greater distance between the two is required. The alternate route, just as the primary route, must be coordinated.

*c. Conduct of the Patrol.*

(1) Plan carefully for every action the patrol will take.

(a) Formation and order of movement.

(b) Departure and reentry of friendly area(s).

(c) Rallying points and actions at rallying points.

(d) Actions on enemy contact.

(e) Actions at danger areas.

(f) Actions at objective.

(2) Help the planned conduct of the patrol to succeed by carefully planning for inspections and rehearsals of all actions.

(3) See chapter 14 for additional details.

*d. Arms and Ammunition.* Check to see if the arms and ammunition specified in the warning order have been obtained. Were all items available? Are they adequate? The patrol must be informed if any changes are made.

*e. Uniform and Equipment.* Check to see if all desired equipment was available and was drawn. Is additional equipment needed? Do you need to modify the prescribed uniform? Make necessary changes now and inform the patrol.

*f. Wounded and Prisoners.* Your unit may have an SOP for handling wounded and prisoners, or the patrol order may give instructions. If not, consider situations which may arise and plan for each (ch. 14).

*g. Signals.* Plan the signals to be used within the patrol. This includes arm-and-hand signals, pyrotechnic signals, and call signs for radios used to communicate within the patrol.

*h. Communication with Higher Headquarters.* What call signs will be used? What are the primary and alternate frequencies? When do you report? Will you use special code words or transmit in the clear? Remember to include all essential details of communications.

*i. Challenge and Password.* Be sure to include the current challenge and password. Don't forget to check for the challenge and password to be used within the patrol and outside of friendly areas.

*j. Chain of Command.* Is everyone assigned to place in the chain of command?

*k. Location of Leaders.* Where do you plan to be in the forma-

tion? Make it clear that you will move as the situation requires. Place the assistant patrol leader where he can best assist in control during movement. During actions at the objective, he must be positioned so he can readily take command if you become a casualty.

### 136. Issue Your Patrol Leader's Order

a. Issue your patrol leader's order in a clear, concise, and forceful manner. If it is not practical to issue the order to all personnel, issue it to element leaders, who further issue the order to their teams.

b. Instruct the men to hold questions until completion of the order to prevent interruption of your chain of thought.

c. Use available visual aids, such as a terrain model or a blackboard. If none are available, sketch planned actions in the sand, dirt, or snow.

d. Issue the order in operation order sequence, following the format in figure 72.

e. Fire support plans, boat loading plans, and aircraft loading plans are usually given at the end of the order.

f. The order is issued orally.

### 137. Inspect and Rehearse

Inspections and rehearsals are vital to proper preparation. They must be conducted even though you and your men are well experienced in patrolling.

a. *Inspections* determine the state of readiness, both physical and mental, of the men.

- (1) *Inspect before rehearsals* to insure completeness and correctness of uniform and equipment. Question the men to insure each knows—
  - (a) The planned operations of the patrol.
  - (b) The part he plays—what he is to do and when he is to do it.
  - (c) What others are to do, as far as their actions concern him.
  - (d) Challenges and passwords, codes, radio call signs, frequencies, reporting times, and any other details that will help insure everyone is fully prepared.
- (2) There is usually a period of time between final rehearsal and departure. Inspect again *just before departure* to insure all equipment is still in working order, nothing is

PATROL LEADER'S ORDER

1 SITUATION

- a Enemy Forces: Weather, terrain, identification, location, activity, strength
- b Friendly Forces: Mission of next higher unit, location and planned actions of same on night and day, base support available for patrol, mission and route of other patrols.
- c Attachments and Detachments.

2 MISSION - What the patrol is going to accomplish.

3 EXECUTION - (Subparagraph for each subordinate unit.)

- a Concept of operation.
- b Specific duties of elements, teams, and individuals.
- c Coordinating instructions.
  - (1) Time of departure and return
  - (2) Formation and order of movement
  - (3) Route and alternate route of return
  - (4) Departure and reentry of friendly areas
  - (5) Rallying points and actions at rallying points
  - (6) Actions on enemy contact
  - (7) Actions at danger areas
  - (8) Actions at objective
  - (9) Searches and inspections
  - (10) Debriefing

4 ADMINISTRATION AND LOGISTICS

- a Rations
- b Arms and ammunition.
- c Uniform and Equipment items which members will carry and use
- d Method of handling wounded and prisoners.

5 COMMAND AND SIGNAL.

- a Signal
  - (1) Signals to be used within the patrol
  - (2) Communication with higher headquarters - radio call signs, primary and alternate frequencies, times to report and special code to be used
  - (3) Challenge and password.
- b Command
  - (1) Chain of command.
  - (2) Location of patrol leader and assistant patrol leader in formation

Figure 72. Format for patrol leader's order.



*Figure 75. Issuing the patrol leader's order.*

left behind, and the men are ready to accomplish the mission. If you consider it appropriate, go over all the details covered in the pre-rehearsal inspection.

*b. Rehearsals* insure the operational proficiency of your patrol. They allow you to check plans and make any changes needed. You are able to verify the suitability of equipment you plan to use. It is through such rehearsals that patrol members become thoroughly familiar with the actions they are to take during the patrol.

- (1) If the patrol is to operate at night, conduct both day and night rehearsals. If possible, use terrain similar to that over which you will operate. All actions should be rehearsed. If time is limited, rehearse the most critical phases. Action at the objective is the most critical phase of the patrol and is always rehearsed.
- (2) An effective method is to first talk the patrol through each phase, describing the actions and having each man



*Figure 74. Inspect your patrol.*

perform his duties. When satisfied that everything is clear to all members, run the patrol through, using only the signals and commands you will use during the actual conduct of the patrol. Continue rehearsals until the patrol is thoroughly familiar with the planned operation. Rehearsals conducted in this manner are often called "dry runs" and/or "wet runs."

## CHAPTER 14

### CONDUCT OF PATROLS

---

#### 138. General

All plans and preparations are for one purpose—the successful conduct of the patrol. This chapter explains principles to follow in conducting the patrol, and techniques you can use.

#### 139. Formation and Order of Movement

a. The general and special organization of the patrol established the elements and teams needed to do the job in the objective area. Now, determine the formation(s) in which you will move to the objective area and the location of elements, teams, and individuals in the formation(s). This is called *organization for movement*.

b. The dismounted platoon formations discussed and illustrated in FM 7-15 are adaptable to a patrol of any size. You can change from one formation to another as the situation requires. Each formation has certain advantages and may be varied to fit the terrain, the situation, and your needs. You may have to sacrifice some control for better dispersion or give up some speed for greater stealth and more security.

c. These are the major factors that influence organization for movement:

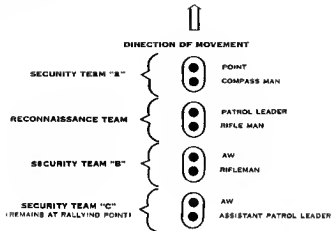
- (1) *Enemy contact.* The most important consideration in organizing for movement is the action you will take if the patrol makes contact with the enemy (par. 142).
- (2) *Tactical integrity.* As far as practicable, organize so element and team integrity are maintained. This helps in control, security, employment at the objective, and any other enemy contact.
- (3) *Employment at objective.* Consistent with other considerations, organize so employment at the objective is quick and easy.
- (4) *Control.* Can your patrol be controlled better in one formation than another? The size of the patrol is an important consideration.

- (5) *The enemy situation.* Where is the enemy? Can he ambush you? How strong is he?
- (6) *Speed of movement.* When must you reach the objective? When must you return? Rate of movement is governed by the speed of movement of heavy weapons and equipment. If circumstances permit, place them near the front so they set the pace.
- (7) *Stealth.* Can your men move quietly? Does your formation force the flanks to move through noisy underbrush? Which is most important—stealth or speed?
- (8) *Security.* From which direction is contact with the enemy most likely to come? Will you have all-round security? Assign areas of responsibility to elements, teams, and individuals. Will speed or stealth provide the best security? A carefully controlled combination of speed and stealth is usually best.
- (9) *Dispersion.* Will all your men be hit by one burst of fire? Can you still control your men?
- (10) *Terrain.* How will the terrain affect you? Is it wooded or open? Are there roads or streams to cross?
- (11) *Visibility.* Is visibility good or poor? Can the enemy see you? Can you see and control your men?
- (12) *Weather.* How will the weather affect the ground, streams, and visibility?

#### 140. Departure and Reentry of Friendly Area(s)

a. Your commander coordinates with friendly units in whose areas your patrol will operate. In some instances, he makes all arrangements for departure and reentry. Normally, however, you will have to contact one or more positions near or through which you will pass and coordinate your movements in departing and reentering the area. Positions where coordination may be necessary are: company CP and OP, platoon CP-OP, and the last position through or near which you pass.

b. Move cautiously when approaching positions in friendly areas because you are regarded as an enemy until identified. Halt the patrol near the position; go forward and contact the position, and if possible, the local leader. Take at least one man with you. You may take more if the situation permits, but remember that unusual activity at a forward position may attract enemy attention and endanger your patrol and the position. Tell the personnel at the position the information they need to assist you, such as the size of the patrol, general route, and expected time of return.



*Figure 76. An example of the organization for movement of a reconnaissance patrol.*

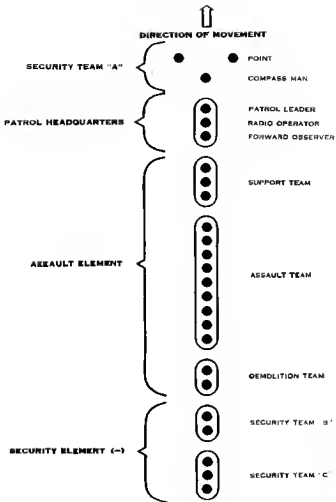
Coordinate your initial rallying point with them. Your specific mission and exact route are not normally given personnel in the most forward positions. Request the latest information on the enemy, terrain to the front, and known obstacles. Check for communication facilities, fire support they can provide or obtain, and any other assistance they can give. Check to see they know the challenge and password. Find out if they will be manning the position when you return. If not, ask them to tell their relief of your patrol's activity. Your patrol can pass to the flank of the position or through the position. The method used depends on your commander's desires and the presence or absence of obstacles such as mines and wire. Ask for a guide to take you to the next position. Ask each position to notify the next position of your approach if communications facilities permit. Request a guide if you must pass through minefields or wire.

c. Follow the same general procedure for reentering friendly areas. Give each position any information that may be of immediate value. If anyone is missing, warn the positions to be on the lookout for him.

#### 141. Rolling Points

a. *Explanation.* A rallying point is a place where a patrol can





*Figure 78. An example of the organization for movement of a combat patrol.*

assemble and reorganize. It should provide cover and concealment, be defensible for at least a short time, and be easily recognized and known to all patrol members.

- (1) All rallying points are termed tentative rallying points until they are reached, found to be suitable, and designated.
- (2) When you designate a rallying point, halt the patrol and tell them, "This is a rallying point." Point out identifying features. Be sure the information is passed to all patrol members.

b. *Types.* There are three types of rallying points:

- (1) *Initial rallying point.* A point within friendly areas where the patrol can rally if it becomes scattered before departing friendly areas or before reaching the first rallying point en route. The initial rallying point must be coordinated with the commander or leader in whose area it lies.
- (2) *Rallying points en route.* Rallying points between friendly areas and the objective.
- (3) *Objective rallying point.* A rallying point near the objective where the patrol reassembles after the mission is accomplished. Where appropriate, this can be used as the point from which the leader's reconnaissance is conducted and from which elements and teams move into position to accomplish the mission.

c. *Selecting Rallying Points.*

- (1) Select likely locations for rallying points during reconnaissance or map study. Designate them as tentative rallying points in your patrol leader's order. Remember they may prove unsuitable and must be confirmed and announced when you reach them.
- (2) Always select a tentative initial rallying point and a tentative objective rallying point. If you cannot locate suitable areas during reconnaissance or map study, designate these two tentative rallying points by grid coordinates or in relation to terrain features.
- (3) Select additional rallying points en route as you reach suitable locations.
- (4) When you reach a danger area you cannot bypass, such as a trail or stream, select a rallying point on both the near and far sides. If good locations are not available, designate the rallying points in relation to the danger area. For example, say "... 50 meters this side of the trail," or "... 50 meters beyond the stream."

- (a) Those who reconnoiter the danger area must also check beyond it for a suitable rallying point. Designate the rallying point on the basis of their report.
- (b) If the patrol's crossing of the danger area is interrupted, or if a portion is separated from the patrol, all members proceed to the rallying point on the far side as soon as possible.

*d. Use of Rallying Points.*

- (1) The initial rallying point and rallying points en route are selected to prevent complete failure of the patrol if it is unavoidably dispersed. **YOU MUST MAKE EVERY EFFORT TO MAINTAIN CONTROL TO AVOID USING THESE RALLING POINTS.** The success of the patrol is jeopardized if it is dispersed and forced to rally.
- (2) The objective rallying point helps the patrol to reassemble after the various elements and teams have separated to perform their assigned missions.
- (3) If dispersed within the friendly area, patrol members assemble at the initial rallying point.
- (4) If dispersed between the friendly area and the first rallying point en route, patrol members move to the initial rallying point or to the first rallying point en route. You must state the rallying point to be used in your patrol leader's order. Your decision is based on careful consideration of all circumstances.
  - (a) Return to the initial rallying point may be extremely difficult due to mines, wire, or the enemy situation.
  - (b) Forward movement to the first rallying point en route may also be difficult, impractical, or impossible. The point selected may be mined or occupied by the enemy. The cause of dispersal, such as enemy contact, may prevent forward movement. Without maps and compasses, your men may not be able to locate the point.
- (5) If dispersed between rallying points en route, patrol members return to the last rallying point or move to the next tentative rallying point. You must make and announce this decision at each rallying point. As before, your decision is based on careful consideration of all circumstances.

*e. Actions at Rallying Points.* Plan the actions to be taken at rallying points and instruct the patrol accordingly. At the initial rallying point and rallying points en route, you must provide for

the *continuation of the patrol* as long as there is a reasonable chance to accomplish the mission. For example, you may plan—

- (1) For the patrol to wait until a specified portion of the men have arrived and then proceed with the mission under the senior man present. This plan could be used for a reconnaissance patrol where one or two men may be able to accomplish the mission.
- (2) For the patrol to wait for a specified period, after which the senior man present will determine actions to be taken based on personnel and equipment present. This could be the plan when a minimum number of men or certain items of equipment, or both, are essential to accomplishment of the mission.

## 142. Actions on Enemy Contact

a. There are two types of enemy contact.

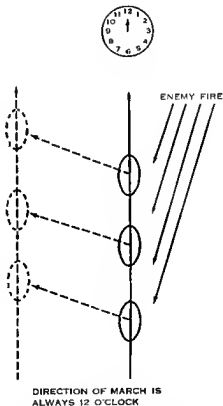
- (1) *Chance contact.* This, as the term implies, is an accidental meeting. The enemy didn't expect you and is not specifically prepared to deal with you.
- (2) *Ambush.* An ambush is a surprise attack from a concealed position upon an unsuspecting, moving, or temporarily halted enemy.

b. In a chance meeting with the enemy, you must break contact as quickly as possible and continue the mission. If you engage the enemy any longer than necessary to break contact, you jeopardize your mission.

- (1) The "clock system" is one means to break contact. Twelve o'clock is the direction of movement of the patrol. You shout a direction of the clock and a distance. For example, "Ten o'clock—two hundred," means for the patrol to move in the direction of 10 o'clock for 200 meters. As far as possible, patrol members keep their same relative positions as they move so the original formation is not disrupted (fig. 77). Subordinate leaders must be especially alert to insure all men get the word and that elements and teams move quickly, correctly, and in an orderly manner. Each man must be alert to move in relation to the patrol's direction of march, not in relation to the direction he is facing at the moment.
- (2) Fire and movement is another means to break contact. One portion of the patrol returns enemy fire while another portion moves a short distance. Each covers the other by fire until contact is broken by all.

(3) The methods may be combined, if appropriate, with each group moving by the "clock system" as directed.

c. If ambushed, you must act promptly to overcome the enemy's advantage of surprise and initial fire superiority. In an ambush, you have two courses of action—withdrawal or immediate assault through the ambush. A well-prepared ambush will block move-



PATROL MOVES AT COMMAND "TEN O'CLOCK—TWO HUNDRED"

*Figure 77. The clock system can be used to break contact.*

ment to the flanks by use of natural obstacles such as cliffs, streams, or embankments, or with manmade obstacles such as the "Claymore" antipersonnel weapon, or a combination of both. Withdrawal over your route may also be blocked by fire and weapons similar to the "Claymore." Often the best, and sometimes only, means to break contact is by assault. Quickly determine the point of weakest fire, assault this point with maximum fire, and fight your way through.

d. Anticipate the situations where enemy contact may be made and plan for actions in each situation. Be sure that organization for movement (par. 139) and planned actions on enemy contact support each other.

### 143. Actions at Danger Areas

A danger area is any place where the patrol is vulnerable to enemy observation or fire. Some danger areas you might encounter and have to cross are open areas, roads, trails, and obstacles such as barbed wire, minefields, rivers and streams, and lakes. Any known or suspected enemy position the patrol must pass is also a danger area. When making your map study or reconnaissance, try to identify all of the danger areas you must cross. Plan for crossing each danger area and include these plans in your patrol leader's order so patrol members will know exactly what to do upon reaching those areas.

a. Reconnoiter the near side and flanks of a danger area first, then investigate the far side. If the far side is clear of enemy, move past the danger area with members of the patrol covering each other. Remember—obstacles are usually covered by fire. Avoid using gaps in barbed wire or in minefields. Make your own. Send security through the gap before moving the patrol through.

b. In crossing a river, first reconnoiter the near bank; then place the patrol in a position to cover the far bank. When a stream is shallow and easy to wade, send security across to the far bank. After the far bank is checked, cross rapidly with the remainder of the patrol. When a stream is too deep to be crossed rapidly, you still must check the far bank. The security element swims or wades across under cover of the rest of the patrol. Under cover of the security, the remainder of the patrol swims or wades across the stream individually or in pairs. If crossing the stream requires swimming, use improvised rafts to float weapons and ammunition. In cold weather it may be desirable to float clothing across.

c. If you use a noncollapsible boat to cross the river, it is not wise to hide the boat on the far bank. The enemy may find it and be waiting for your return. Use a member of the patrol to return the boat to the near side. Avoid using the same crossing site on return. If you must recross at this point, arrange a special signal so the man you left can cross with the boat to pick up the patrol.

d. Cross a road or trail at or near a bend or where the road is narrow so the enemy's observation is restricted and you will be exposed as short a time as possible. Reconnoiter the near side of the road, then send security across to investigate the far side. This includes investigation of the tentative rallying point on the far side. Under cover of the security, the remainder of the patrol crosses as rapidly and quietly as possible.

e. If your patrol must pass close to an enemy position, take advantage of battlefield noises to cover the sounds of movement. If supporting fires are available, you can call for them to divert the enemy's attention as the patrol passes.

#### 144. Actions at The Objective

Actions at the objective are the most important of all phases of the patrol. See chapters 15 and 16.

#### 145. Control

The success of the patrol depends on the control you are able to exercise over it. You must be able to maneuver your men as the situation requires; to start, shift, or stop their fire as needed.

##### a. *Control by Voice and Other Audible Means.*

- (1) Oral orders are a good means of control. Speak just loudly enough to be heard. Do not shout except in an emergency. At night, or when close to the enemy, halt the patrol and have subordinate leaders come forward. Speak to them in a low voice or whisper. They pass the information on by moving from man to man. If use of subordinate leaders is not appropriate to the circumstances, you may move from man to man, speaking in a low voice or whisper.
- (2) Radios are an excellent means of control, especially in a large patrol.
- (3) Other sound signals can be used if you can be sure they will serve the purpose intended. Rehearse planned sound signals before starting on the patrol. Sound signals used must be natural sounds that are easily understood. A few simple signals are better than many sig-

nals. *Bird and animal calls are seldom satisfactory.* They are difficult to imitate and their proper use requires detailed knowledge of the bird or animal imitated.

*b. Silent Control Measures.*

- (1) Arm-and-hand signals can be used when appropriate, such as near the enemy. All members must know the signals and be alert to receive and pass them to other members. You, too, must be alert for signals from any patrol member. Patrol members may develop special signals of their own during training. Be sure any special signals are understood by all. If no established signal fits the situation, use gestures. For example, cup your hands to your eyes and point in a certain direction to indicate a man is to observe in that direction. Attract a patrol member's attention by tossing a pebble or twig near him. Then give your signal or gesture.
- (2) Infrared equipment such as the sniper scope, the metascope, and infrared filters for the flashlight may be used as means of sending and receiving signals and maintaining control at night.
- (3) Luminous tape can be used to assist in control at night. Two strips the size of a lieutenant's bar on the back of the cap or collar aid in following the man in front. Care must be taken to cover these when near the enemy. The luminous marks on the compass may be used for simple signals over short distances.

*c. Patrol Members Assist in Control.*

- (1) The assistant patrol leader usually moves at or near the rear of the patrol and prevents men from falling behind or getting out of position. He is alert for signals and orders and insures that other members receive and comply with them. When the patrol halts, he contacts you for instructions.
- (2) Other subordinate leaders move with and maintain control over their elements and teams. They, too, are alert for signals and orders and insure their men receive and comply with them.
- (3) All patrol members assist in control by staying alert and passing signals and orders on to other members. A signal to halt may be given by any patrol member but the signal to resume movement is given only by the patrol leader.

*d. Accounting for Personnel.* An important aspect of control is the accounting for personnel—knowing all members are pres-



ent. Personnel must be accounted for after crossing danger areas, after enemy contact, and after halts.

- (1) When moving in single file, the last man "sends up the count" by tapping the man in front of him and saying "one" in a low voice or whisper. This man taps the man in front of him and says "two." This continues until the count reaches you. The men behind you, plus yourself and the men you know to be ahead, should equal the total of the patrol.
- (2) In large patrols, or when moving in a formation other than single file, subordinate leaders can check their men and report to you.
- (3) Arrange for leaders to report or for the last man to "send up the count" automatically after crossing danger areas, after enemy contact, and after halts.
- (4) Arrange so the count will be sent forward when you turn to the man behind you and say, "send up the count." This is passed back to the last man, who starts the count.
- (5) Each man must insure that the man he taps receives and passes on the count.

#### 146. Navigation

a. Assign one or more men to be navigators for the patrol, but check them often. Do not hesitate to change if they are not navigating properly. *You are responsible*, regardless of who you have doing the job.

b. Assign men as pacers to check the distance from point to point. Use at least two pacers and take the average of their counts for an approximation of the distance traveled. Separate your pacers in the patrol so they will not influence each other's count.

c. Divide your route into "legs", with each leg starting at a point you can recognize on the ground. Have the pacers start their counts over at the beginning of each leg. This makes the pace count easier to keep and provides you with periodic checks on the accuracy of the pacers.

d. Arrange so the pace count will be sent forward when you turn to the man behind you and say, "send up the pace." This is passed back to both pacers, who send up the pace count in meters; for example, "200," "one-seven-five," or "one-five-zero."

e. Be sure the men understand the counts of *both* pacers are to be sent forward. *You must know the counts of both men in order to check them.*

## 147. Security

Your organization for movement gives you a certain amount of security. This is not enough, however. You must take additional steps.

### a. Day Patrols.

- (1) Disperse the patrol consistent with control, visibility, and other factors.
- (2) Keep security personnel well out—particularly those in front. Assign areas of responsibility to the front, flanks, and rear.

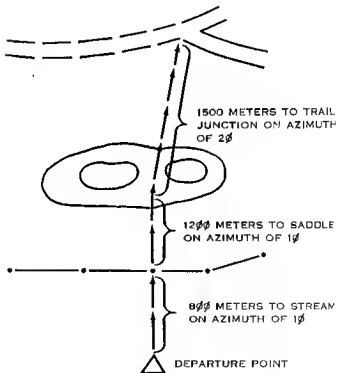


Figure 78. Divide your route into "legs" for easier check of the pace.

- (3) When moving along high ground, be careful not to silhouette the patrol on ridge lines.
- (4) Avoid exposed areas and take advantage of available cover and concealment.
- (5) Maintain an even pace; avoid rushing or running—sudden movements attract attention.
- (6) Avoid known or suspected enemy locations and built-up areas.

b. *Night Patrols.* Use the same techniques as for a day patrol, modifying them as appropriate.

- (1) Keep men closer together than in day.
- (2) Emphasize silent movement. The battle area is comparatively quiet at night and sounds carry farther.
- (3) Reduce speed of movement so there is no danger of men becoming separated from the patrol.

c. *Avoiding Ambush.* Proper security and reconnaissance is the best guard against ambush. You must always be alert and suspicious of all areas. Certain areas are more suitable for an ambush than others—roads and trails, narrow gullies, villages, and pen areas. Use caution when approaching these areas. Halt the patrol and study the area. Avoid routes used by other patrols. For action if ambushed, see paragraph 142.

d. *Halts.*

- (1) Halt the patrol occasionally to observe and listen for enemy activity. This is called a *security halt*. When you give the signal, every man *freezes in place*, maintains absolute quiet, looks, and listens. This is done upon reaching a danger area and periodically throughout movement en route. It may be appropriate to call a security halt just after departing friendly areas and just before reentering friendly areas. If concealment is scarce, have the men go down on one knee or to the prone position. Remember—observation is not as good from these positions and the larger body area in contact with the ground makes silence more difficult to maintain. Do not stop long. It is difficult to remain absolutely still and quiet for more than two or three minutes.
- (2) You may halt the patrol briefly to send a message, eat, rest, check direction, or make a reconnaissance. Select an area that provides concealment, and if possible, one that provides cover and favors defense. Establish all-round security. Check to insure everyone moves out

when you start again. At night, make each man responsible for notifying the man behind him. This insures everyone moves out together and prevents loss of time. For extended halts, see paragraph 150.

e. *Security to the Front.* This is provided by the point, which may consist of one man in a small reconnaissance patrol. A combat patrol (usually larger) normally uses two men. A company-sized patrol may use a fire team or a squad.

- (1) The point must move well ahead of the patrol—as far ahead as visibility and terrain permit. In the jungle or on a completely dark night, this may be only a few meters. On the other hand, good visibility and open terrain may require the point to be 100 meters or more ahead of the patrol.
- (2) The point maintains direction by occasional glances at the compass and by maintaining visual contact with the patrol by looking back and orienting on the patrol. If two or more men are used as the point, they maintain visual contact with the man on their right or left.
- (3) The point moves right and left, ahead of the patrol, screening the area over which the patrol will pass (fig. 79).
- (4) The point provides *security* and is *not* a trailbreaker for the patrol. The point must be far enough ahead of the patrol to provide this security. Only in unusual circumstances of poor visibility and close terrain will the point be close enough to the patrol to be guided by the compass man.
- (5) A technique which allows good use of personnel is to use a three-man security team for point and compass men. Two men work as point while the third is compass man. On long patrols, the men rotate duties.

#### 148. Use of Radios

Use radios sparingly. The depression of the transmission button is sometimes sufficient to relay certain information. When transmitting close to the enemy, cup your hands over the transmitter and speak in a low voice.

#### 149. Infiltration

a. There may be times when the disposition of enemy forces prevents a patrol from entering the enemy area as a unit; however, pairs or small groups may be able to sneak through without

being discovered. If this is the case, the patrol splits up as it leaves the friendly area or at a later specified time. Small groups infiltrate at varying times, each using a different route. After slipping into the enemy area, the groups assemble at a predetermined location called the rendezvous point. The rendezvous point must be free of enemy, provide concealment, and be easily recognizable. An alternate rendezvous point is selected in case the initial one cannot be used. If all members of the patrol have not reached the rendezvous point within a reasonable period, the senior man present determines actions to be taken.

b. The same procedure is followed to return to the friendly area. The patrol splits up and returns, reassembling near or within the friendly area.

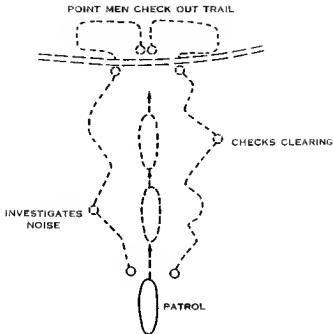
c. A patrol may return by infiltration even though this method was not used to enter the enemy area. This might be done when a change in the tactical situation prevents return as a unit. Infiltration breaks up the tactical integrity of a patrol and is used only when other methods of return are impractical or impossible.

#### 150. Clandestine Assembly Area

a. When a patrol is required to halt for an extended period in an area not protected by friendly troops, active and passive measures must be taken to provide maximum security while the patrol is in such a vulnerable situation. The most effective means of insuring maximum security is to move the patrol into an assembly area, which by its location and nature provides passive security from enemy detection. Such an assembly area is termed a *clandestine assembly area*.

b. Activities carried out in a clandestine assembly area are similar to those associated with an assembly area located within friendly battle positions, except it is even more important that movement be held to a minimum. The site location and internal organization of a clandestine assembly area require more detailed considerations than are required in establishing an assembly area in terrain protected by friendly troops.

c. Your plan must include tentative clandestine assembly area locations—based on a map reconnaissance—when the nature of the operation dictates an extended halt within enemy areas. These tentative locations must be confirmed by actual ground reconnaissance prior to occupation by the patrol. Typical situations that require planning for the establishment of a clandestine assembly area include those where there is—



*Figure 79. An example of the movements of the patrol.*

- (1) A requirement to cease all movement during daylight hours to avoid detection.
- (2) A requirement to hide the patrol while you conduct a detailed reconnaissance of the objective area.
- (3) A need to rest and reorganize after extended movement
- (4) A need to formulate a final plan and issue necessary orders prior to actions at the objective.
- (5) A requirement for reorganization after a patrol has infiltrated the enemy area in small groups (used in conjunction with a rendezvous point).

d. Your plan for a clandestine assembly area must include both passive and active security measures.

(1) Passive security considerations—

AVOID built-up areas.

SELECT an area remote from all human habitation.

AVOID known or suspected enemy positions.

SELECT terrain which would be considered of little tactical value.

AVOID ridgelines, topographic crests, valleys, lakes, and streams.

SELECT steep terrain, ravines, or other such areas that would impede foot movement.

AVOID all roads and trails.

SELECT areas which do not offer natural lines of drift.

AVOID open woods and clearings.

SELECT areas offering dense vegetation, preferably bushes and trees that spread out close to the ground, such as laurel, mesquite, and scrub oak.

(2) Active security measures you must include in planning the occupation of a clandestine assembly area include—

(a) Establishment of an outpost system covering all likely avenues of approach into the area.

(b) Establishment of a radio communication net with the outposts to provide early warning of enemy approach.

(c) Selection of an alternate area for occupation if the original clandestine assembly area is compromised or found unsuitable.

(d) A plan for withdrawal in the event of discovery.

(e) Establishment of an alert plan with a certain percent of the personnel awake at all times.

(f) Use of the chain of command to enforce light and camouflage discipline.

(g) Organization of the elements of the patrol so necessary activities can take place with a minimum amount of movement.

e. The size of the area physically occupied by a patrol in a clandestine assembly area and the number of outposts required are governed by the terrain, quantity and quality of cover and concealment, and the size of the patrol. A simple rule of thumb you can use in determining how large the area should be is to occupy the minimum amount of terrain necessary to provide maximum concealment with the natural cover and concealment available. In other words, spread out in relatively open areas and close up in dense areas. A typical organization for a clandestine

assembly area, showing two-man outposts covering avenues of approach, is shown in figure 80.

### 151. Reporting

Report important information about the enemy or the terrain as soon as possible. Report by radio, telephone, messenger, or pre-arranged signal. When you return and are debriefed, use a map or aerial photograph to point out areas or specific locations where you obtained information. If appropriate, make an overlay or sketch.

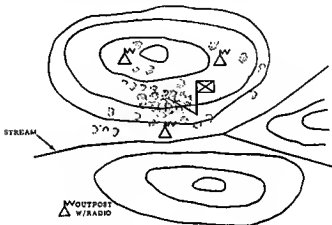


Figure 80. Typical organization of a clandestine assembly area.



## CHAPTER 15

### RECONNAISSANCE PATROLS

---

#### 152. General

Information of the enemy and the terrain he controls is vital to the commander. He must have accurate, timely information to assist him in making tactical decisions. Reconnaissance patrols are one of the most reliable means for obtaining this information.

#### 153. Missions

a. In a sense, the mission of a reconnaissance patrol asks one or more questions, for example—

- (1) *About the enemy.* Does the enemy occupy a certain piece of terrain? What is his strength? How is he equipped? What is he doing?
- (2) *About the terrain.* How deep are the streams? Are the banks too steep for armored vehicles? What is the condition of the bridge at a certain point? How suitable are the routes of approach?

b. The questions the mission asks are answered by the successful accomplishment of the mission.

#### 154. Types of Reconnaissance

There are two general types of reconnaissance—

a. *Point Reconnaissance.* Your commander may require information about a specific location or small specific area, usually a known position or activity. Your patrol secures this information by reconnoitering the location or by maintaining surveillance over the location.

b. *Area Reconnaissance.* Your commander may require information about an extended area, or may desire information of certain locations within an extended area. Your patrol secures this information by reconnoitering the area, maintaining surveillance over the area, or by making the point reconnaissance of a series of locations within the area.

#### 155. Organization

A reconnaissance patrol is organized into a reconnaissance ele-

ments depends on the specific mission. A patrol with a point reconnaissance mission is usually small—about fire team size. The reconnoitering element consists of the patrol leader and one or two men. A patrol with an area reconnaissance mission is usually larger. Several reconnaissance teams and several security teams may be required. In some cases, reconnaissance teams may provide their own security (ch. 12).

### 156. Equipment

a. Patrol members are armed and equipped as necessary for accomplishing the mission. At least one automatic weapon usually is taken to provide a degree of sustained firepower in case of enemy contact. The patrol should have at least two pairs of binoculars, two pairs of wire cutters, two compasses, two watches, and adequate communication. A day patrol should carry a camera if one is available. The type which develops and prints the picture at once is ideal for reconnaissance patrols.

b. A scout dog team may be taken (see ch. 12).

c. Infrared equipment may be used.

d. Pencils and small notebooks are carried so notes and sketches can be made.

### 157. Conduct of A Reconnaissance Patrol

All patrols try to reach the objective without being discovered. *A reconnaissance patrol also tries to conduct its reconnaissance without being discovered.* Information may lose some or all of its value if the enemy knows we have it. Stealth and patience are emphasized. Maximum use of concealment is mandatory. The patrol fights only to accomplish its mission or to protect itself. The commander tells you whether he wants you to fight to accomplish the mission. In some situations, you can locate enemy positions by having some of your men fire to draw the enemy's fire. This technique is called "reconnaissance by fire." It is not used if there is any other way to accomplish the mission, and is used only when authorized by the commander.

### 158. Actions at The Objective

a. *Point Reconnaissance.* Halt and conceal use patrol near the objective. This will usually be at the objective rallying point. Conduct your leader's reconnaissance to pinpoint the objective and confirm your plan for positioning security teams and making the reconnaissance. Return to the patrol and position security teams. Place them so they can provide early warning of enemy approach.



Figure 21. Point reconnaissance by the patrol leader and one man.

secure the objective rallying point, and protect the reconnaissance element. Then reconnoiter the objective. You may be able to get the desired information quickly and simply. It is more likely you will have to move to several positions, perhaps making a circle around the objective, in order to properly reconnoiter it. Allow yourself a reasonable length of time. Instruct the assistant patrol leader to accomplish the mission if you have not returned by this time. When the reconnaissance is completed, assemble the patrol and tell everyone what was seen and heard. Be sure everyone contributes anything he may have learned. Make a preliminary report by radio if possible. Return to your unit as quickly as possible and make a full report.



*Figure 44 Teams return and report.*

*b. Area Reconnaissance.*

- (1) Halt the patrol at the objective rallying point, conduct your leader's reconnaissance, and confirm your plan. Position security teams and send out the reconnaissance teams. When you use the entire patrol to reconnoiter the area, each reconnaissance team provides its own security.
- (2) After completing the reconnaissance, teams return and report. Make a preliminary report by radio if possible, then return to your unit and make a full report.
- (3) Under some circumstances, the patrol may assemble at a predetermined rendezvous point rather than return to the objective rallying point. This plan might be used if

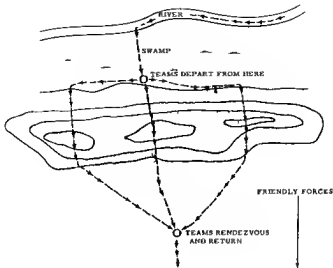


Figure 85. Reconnaissance after approach from the rear.

you approach the objective area from the rear and consider it impractical to move through the area twice. For example, you might reach the enemy's rear by moving down a river, pass through and reconnoiter the objective area, assemble at a rendezvous point, and proceed to friendly areas.

c. *Day and Night Reconnaissance.* The principal differences in the reconnaissance techniques used by day and night reconnaissance patrols are—

- (1) Day reconnaissance requires maximum use of concealment. You are more likely to be seen than at night and will not usually be able to get as close to the objective.
- (2) Night reconnaissance requires greater use of stealth. Reduced visibility will usually require you to move closer to the objective in order to obtain information.

## CHAPTER 16

### COMBAT PATROLS

---

#### Section I. GENERAL

#### 159. Purpose of Combat Patrols

Combat patrols assist the unit in accomplishing its mission by—

- a. Inflicting damage on the enemy.
- b. Providing security to the unit.
- c. Establishing and/or maintaining contact with friendly and enemy forces.
- d. Denying the enemy access to key terrain.

#### 160. Missions

Combat patrols perform a variety of missions, deriving their names from the specific missions they perform.

- a. *Raid patrols* destroy or capture personnel or equipment, destroy installations, or liberate personnel.
- b. *Security patrols* detect infiltration by the enemy, destroy infiltrators, and protect against surprise and ambush.
- c. *Contact patrols* establish and/or maintaining contact with friendly or enemy forces.
- d. *Economy of force patrols* perform limited objective missions such as seizing and holding critical terrain to allow maximum forces to be used elsewhere.
- e. *Ambush patrols* conduct ambushes of enemy patrols, carrying parties, foot columns, and vehicle convoys.

#### 161. Organization

A combat patrol is organized into an assault element, a security element, and usually a separate patrol headquarters. A support element may be organized when appropriate. The special organization of the elements depends on the specific mission (ch. 12).

#### 162. Equipment

Combat patrols are armed and equipped as necessary for accomplishing the mission. In addition to binoculars, wire cutters, com-

passes, and other equipment generally common to all patrols, a combat patrol usually carries a high proportion of automatic weapons.

a. Communication with higher headquarters is important in a combat patrol. Success of the mission may depend on being able to call for supporting fires.

b. Communication with the elements and teams may be vital to accomplishment of the mission. Radios, infrared devices, and wire should be considered.

### 163. Conduct of A Combat Patrol

A combat patrol, like a reconnaissance patrol, tries to reach its objective without being discovered. Its aim is to achieve surprise and strike rapidly, according to a detailed plan, to catch the enemy off guard.

## Section II. RAID PATROLS

### 164. General

A raid is a surprise attack upon an enemy force or installation with the attacking force withdrawing after accomplishing its mission. Surprise, firepower, and violence of action are the keys to a successful raid.

a. Surprise can be achieved by attacking—

- (1) When the enemy is least prepared, as during periods of poor visibility such as darkness, rain, fog, or snow.
- (2) From an unexpected direction. This might be accomplished by approaching through a swamp or other seemingly impassable terrain.

b. Firepower is concentrated at critical points to achieve fire superiority.

c. Violence of action is achieved by gaining surprise, proper use of firepower, and the extreme aggressiveness of the attacking force.

### 165. Special Organization

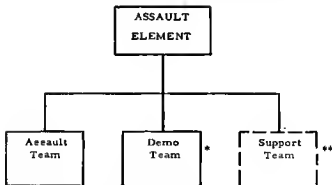
a. The special organization of the security element and the patrol headquarters is largely determined by the terrain, enemy situation, and attached personnel. The special organization of a support element, if used, is determined by availability of suitable firing positions. The specific mission does not particularly influence the special organization of these elements.

b. The special organization of the assault element is determined entirely by the specific mission. For example—

- (1) To destroy an installation or equipment, the assault element is organized into—
  - (a) A support team (if suitable firing positions are available) to deliver neutralizing and supporting fires.
  - (b) An assault team to overcome resistance and physically secure the objective.
  - (c) One or more demolitions teams to set charges.
- (2) To capture prisoners, liberate personnel, or seize equipment, one or more teams are specifically designated to perform these tasks.
- (3) One or more teams may be designated to search dead, wounded, and positions for documents and equipment.

#### 166. Actions of The Objective

a. Halt the patrol near the objective (at the objective rallying point, if the patrol is to return by the same route). Establish security and make your leader's reconnaissance, taking appropriate subordinate leaders. Return to the patrol and confirm previous plans or announce any changes. Dispatch elements and

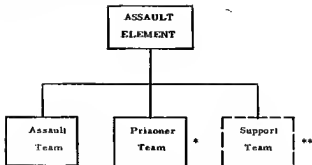


\* Number of teams depends on mission.

\*\* Use of support team(s) depends on availability of suitable firing positions.

Figure 24. An example of the special organization of the assault element for a destruction mission.





\* Number of teams depends on mission.

\*\* Use of support team(s) depends on availability of suitable firing positions.

*Figure 85. An example of the special organization of the assault element to capture prisoners.*

teams to their positions. As far as possible, arranges their movements so all elements and teams reach their positions at about the same time. This improves the patrol's capability for decisive action if prematurely detected by the enemy.

- (1) *Security element.* The teams of the security element move to positions to secure the objective rallying point, give early warning of enemy approach, block avenues of approach into the objective area, and prevent enemy escape from the objective area.
  - (a) As the assault element moves into position, the security element informs you of all enemy action, firing only if detected or on your order.
  - (b) Once the assault element has begun its action, the security element prevents enemy entry into, or escape from, the objective area.
  - (c) The security element covers the withdrawal of the assault element to the objective rallying point, withdrawing itself upon order or upon a prearranged signal.
- (2) *Assault element.* The assault element deploys far enough in advance to permit immediate assault if detected by the enemy on the objective. Each team uses maximum stealth in attempting to get into proper position without being detected. On command, or if detected and fired upon, the

support team(s) opens fire to neutralize the objective, then lifts or shifts fire according to prearranged plans and signals. As supporting fires lift or shift, the assault team(s) assault, seize, and secure the objective. Demolition teams, search teams, and other teams are protected by the assault team(s) while they work. On order, the assault element withdraws to the objective rallying point.

b. At the objective rallying point, quickly reorganize the patrol and return to friendly areas.

### Section III. SECURITY PATROLS

#### 167. General

a. Security patrols screen flanks, areas, and routes. In a static situation, they prevent the enemy from infiltrating the area, detect and destroy infiltrators, and prevent surprise attack. They protect a moving unit, including convoys, by screening the flanks, the areas through which the unit will pass, and the route over which the unit will pass.

b. Once a security patrol contacts the enemy, it literally becomes a raid patrol.

#### 168. Special Organization

Special organization includes a support team to provide maximum flexibility in case of enemy contact. Organization of other teams depends on the known enemy situation and anticipated contact.

#### 169. Equipment

a. A security patrol is armed and equipped according to the known enemy situation and anticipated contact.

b. Communication with higher headquarters is especially important. Radios carried by security patrols must be capable of reliable communication over the entire distance covered.

#### 170. Actions at The Objective

a. Select a series of objectives covering the area in or over which you are to move. Plan the actions to be taken at each objective based on all available information. This is done in the same manner that you plan for actions at danger areas as you move along.

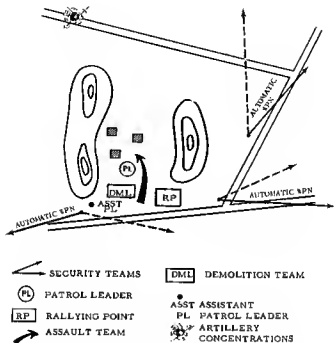


Figure 86. Typical action of a raid patrol at the objective.

b. Be alert to modify your actions if the situation at an objective is not as anticipated.

c. As you secure each objective, confirm or modify plans for the next objective and continue.

#### Section IV. CONTACT PATROLS

##### 171. General

Contact patrols establish and/or maintain contact to the front, flanks, or rear by—

a. Contacting friendly forces at designated points.

b. Establishing contact with a friendly or enemy force when the definite location of the force is unknown.

c. Maintaining contact with friendly or enemy forces.

#### 172. Special Organization and Equipment

Special organization and equipment depend on the known enemy situation and anticipated enemy contact. For example—

a. Contact patrols between adjacent units making contact at designated points are usually small and relatively lightly armed.

b. A patrol sent out to establish contact with an enemy force is organized, armed, and equipped to overcome resistance of light screening forces and insure contact with the main enemy force.

c. As in a security patrol, communication is especially important. Radios must be reliable over the entire distance covered.

#### 173. Actions at The Objective

a. Select a series of objectives, just as in a security patrol, and proceed with the establishment or maintenance of contact as directed.

b. Remember that your mission is to establish or maintain contact, not to engage in decisive combat, if the contact is with the enemy.

### Section V. ECONOMY OF FORCE PATROLS

#### 174. Ganaroi

a. An economy of force patrol attacking a defended objective is organized, armed, and equipped in the same manner as a raid patrol. Its actions at the objective differ from those of a raid patrol only in the fact that it holds the objective instead of withdrawing.

b. An economy of force patrol seizing an undefended objective, or establishing a position without opposition, proceeds to the designated location and organizes the position as required.

#### 175. Missions

Typical missions for economy of force patrols include—

a. Establishing roadblocks to retard enemy movement or prevent reinforcement.

b. Seizing key terrain to deny the enemy access to an area.

c. Covering the withdrawal of a force to deceive or delay the enemy.

d. Acting as a blocking force to allow a major effort to be made elsewhere without interference.

## Section VI. AMBUSH PATROLS

### 176. Missions

Ambush patrols perform such missions as ambushing enemy reconnaissance and combat patrols, carrying parties, wire repair teams, convoys, mounted columns, and dismounted columns.

### 177. Purposes

Ambushes are executed to reduce the enemy's combat effectiveness or to increase our own combat effectiveness, or both.

a. Ambushes reduce the enemy's combat effectiveness by the physical damage caused and through the harassment involved.

(1) *Physical damage.* Loss of men and equipment may critically affect the enemy. He may have to divert men from other missions to protect himself against ambush. The failure of reconnaissance and combat patrols to accomplish their missions, because they were ambushed, deprives the enemy of the valuable contributions these patrols make to his combat efforts.

(2) *Harassment.* The damage caused by the harassment of frequent ambushes is less apparent than physical damage, but is very important. When ambushes are frequent, troops tend to be reluctant to go on patrols, move in convoys, and move in small groups. They become less aggressive and more defensive minded; avoid night operations, become more subject to confusion and panic if ambushed, and decline in effectiveness.

b. Our combat effectiveness is increased when that of the enemy is reduced. For example, a reduction in the enemy's patrolling effort allows greater freedom of action for our patrols, convoys, and other troops.

c. Patrols operating deep in enemy areas may be able to partially or completely resupply themselves through ambushes, thus increasing combat effectiveness at the expense of the enemy.

### 178. Types

a. Ambushes are generally classified according to their primary purpose—harassment or damage. They differ principally in size and actions at the objective (para. 180 and 183).

b. Ambushes are further classified as deliberate ambushes and ambushes of opportunity.

- (1) *A deliberate ambush* is one in which prior information of the target permits detailed planning before the patrol departs for the ambush site. Information needed to plan a deliberate ambush includes the size, composition, and organization of the force to be ambushed; the manner of operation of the force; and the time it will pass certain points or areas. A deliberate ambush may be planned for such targets as—
  - (a) Any force whose sufficient prior information is known.
  - (b) Patrols which establish patterns by frequent use of the same routes or which habitually depart and re-enter their own areas at the same points.
  - (c) Carrying parties which move at regular times over the same route.
  - (d) Troop movements which form patterns, such as changing of personnel on positions at regular times.
- (2) *An ambush of opportunity* is one in which available information does not permit detailed planning before the patrol departs. The patrol must be prepared to execute any of several courses of action. These courses of action are based on the types of targets that may be ambushed and must be rehearsed prior to departure. The course of action taken is determined when the opportunity for ambush arises.
  - (a) You may be directed to reconnoiter an area for a suitable ambush site, set up at the site selected, and execute an ambush against the first profitable target that appears.
  - (b) You may depart just after dark, move to a specified point, run a traffic count until a designated time, ambush the first profitable target after that time, and return before daylight.
  - (c) On patrol, not on an ambush mission, you may find ambush is the best way to make enemy contact that cannot be avoided. For example, while moving to or from your objective, you spot an enemy patrol that cannot be avoided and quickly set up and execute an ambush. The surprise may create enough confusion to enable you to break contact quickly and continue without becoming involved in prolonged combat.

## 179. Factors for Successful Ambush

Certain factors are essential to successful execution of an ambush. They are—

a. *A Good Plan.* Your plan for a deliberate ambush must provide for every course of action the enemy is capable of adopting and must be rehearsed in detail. You must make tentative plans for an ambush of opportunity, adopting or modifying as appropriate at the ambush site. These plans must be as well rehearsed as the situation permits. Your plans must take into consideration the length of the target. Remember that a single platoon, moving in a column of two's with five meters between men, spreads more than 100 meters from front to rear. A convoy of ten vehicles, with fifty meters interval, covers a road distance of more than 500 meters.

b. *Control.* Very close control must be maintained in executing an ambush. This is best achieved through rehearsals and establishment and maintenance of good communications.

c. *Patience.* Your patrol may be forced to occupy an ambush site well ahead of the arrival of the target. Patience is essential if secrecy is to be maintained.

d. *Camouflage.* The key to successful ambush is surprise. Surprise cannot be achieved if men, weapons, and equipment are not well camouflaged and camouflage discipline enforced.

e. *Information of the Enemy.* However sketchy information of the enemy may be, it must be used to the fullest in plans, preparation, and execution.

## 180. Size and Organization

The size and organization of an ambush patrol depend on the purpose of the ambush, the force to be ambushed, and the weapons and equipment with which the ambush will be executed. For example—

a. You are to execute a harassing ambush of opportunity against the first vehicle convoy passing a certain point. You plan to stop the vehicles by electrically detonated demolitions; inflict casualties and inflict damage on vehicles by automatic weapons fire and electrically detonated "Claymore" antipersonnel weapons. In this case, you would take enough men to transport the demolitions and "Claymore" antipersonnel weapons to the ambush site and emplace them. You would keep one or two men armed with automatic weapons and send the rest of the men back to the unit. In executing the ambush, you could detonate the demolitions and



Figure 87. Example of harassing ambush of a vehicle column by three men using demolitions and "Claymore" antipersonnel weapons.



your men deliver heavy fire on the target. You would withdraw before pursuit could be organized or reinforcements brought up.

b. You are to execute a deliberate ambush against a vehicle convoy to destroy all vehicles and kill or capture all personnel. Here, you must have enough personnel for an assault element, a security element, and a patrol headquarters. A support element is likely to be needed to provide heavy automatic weapons fire.

c. Your patrol is operating deep in the enemy area and you ambush a convoy to obtain supplies. In addition to security, support, and assault personnel, you must have personnel designated to collect and transport captured supplies.

## 181. Equipment

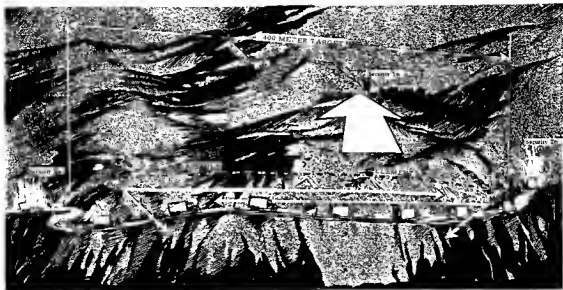
Equipment carried by ambush patrols varies with the assigned mission. For example, more equipment is needed to ambush an enemy vehicular convoy than a foot column. Since the success of ambush patrols depends on surprise and shock action, sufficient automatic weapons are needed to deliver a heavy volume of fire. This is especially true when ambushing foot elements. In addition to automatic weapons, vehicular targets require antitank weapons, demolitions, antitank and antipersonnel mines, and incendiary grenades. Smoke is effective against tanks. Adequate communications are of great importance to insure a smoothly coordinated ambush. Radios are an excellent means, but the use of field telephones should be considered because of increased reliability and security offered.

## 182. Preparation of An Ambush Site

An "ideal" ambush site restricts the enemy on all sides, confining him to an area where he can be quickly and completely destroyed. Unfortunately, it is seldom possible to prepare an "ideal" ambush site and completely restrict the enemy. Natural restrictions or obstacles such as cliffs, streams, embankments, or steep grades which force vehicles to slow down are used whenever possible. Artificial restrictions such as barbed wire, mines, and cratered roads are used not only to confine the enemy to the desired area, but also to inflict casualties.

## 183. Execution of An Ambush

The manner in which you execute an ambush depends primarily on whether your purpose is harassment or damage. To a lesser degree, manner of execution is determined by whether your ambush is deliberate or an ambush of opportunity.

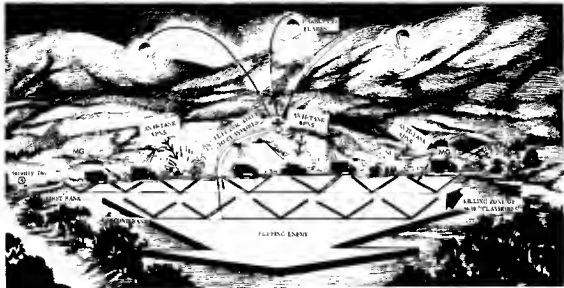


*Figure 38. Example of harassing ambush of a vehicle column using assault and security elements; assault by fire only*

a. When your primary purpose is harassment, seal off the area to prevent reinforcement and escape of the enemy. Inflict maximum damage with demolitions and automatic weapons fire. Deliver a very heavy volume of fire for a short time and withdraw quickly and quietly. Do not assault, except by fire, and avoid physical contact (fig. 88). If possible, avoid being seen by the enemy.

b. When your primary purpose is damage, seal off the area with security teams. Inflict maximum damage with demolitions, anti-tank weapons, and automatic weapons fire from the support team or element. Lift or shift their fires and assault with heavy fire and great violence to complete destruction. The assault team provides security on the far side while designated teams kill or capture personnel and destroy vehicles and equipment (fig. 89). On your command or by prearranged signal, all elements withdraw to the objective rallying point and move out quickly.

c. When your primary purpose is to obtain supplies or capture equipment, security teams seal off the area. Demolitions and weapons are used to disable vehicles, but not to destroy them. The assault team must use care to insure its fire does not damage the supplies or equipment you seek to capture. Designated teams secure the desired items (fig. 90). Other teams then destroy vehicles and equipment if desired. If the ambush is executed to obtain supplies deep in the enemy area, you must insure that no enemy personnel are left to give information of your operation and, if possible, that all vehicles and remaining supplies and equipment are destroyed.



*Figure 85. Example of ambush to destroy a vehicle column. Assault element moves in to complete destruction.*



Figure 90. Example of ambush to obtain supplies or capture equipment. It starts as complete upon removal of equipment.

## CHAPTER 17

### MOTORIZED PATROLS

---

#### 184. Purposa

Patrols are mounted in vehicles to allow them to—

- a. Cover greater distances in less time than dismounted patrols.
- b. Operate in contaminated areas too dangerous for dismounted patrols.
- c. Carry more or heavier equipment, weapons, and ammunition.

#### 185. General and Special Organization

A motorized patrol is organized into elements and teams in the same manner as a dismounted patrol. An example of a motorized reconnaissance patrol is shown in figure 91. Substitution of personnel carriers for wheeled vehicles provides an increased potential for battlefield mobility.

- a. When you assign men to vehicles, maintain fire team or squad integrity as far as possible.
- b. Designate one man to be in command of each vehicle.

#### 186. Preparing a Motorized Patrol

Generally, you prepare a motorized patrol in the same manner as a dismounted patrol. In addition, however, you must insure that all vehicles are in good operating condition and are properly supplied with fuel, oil, and water. You must also insure that all attached men, especially drivers, are thoroughly prepared for the mission.

#### 187. Equipment

- a. Motorizing your patrol enables you to carry heavy or bulky equipment. For example—
  - (1) Antitank weapons and ammunition.
  - (2) Long-range vehicular mounted radios.
  - (3) Surveillance equipment.
  - (4) Additional automatic weapons and ammunition.
- b. Antitank weapons should be placed near the front and rear

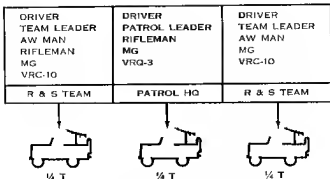


Figure 91. An example of the organization of a motorized reconnaissance patrol.

of the patrol. Designated personnel man these weapons when armor appears.

### 188. Control of Motorized Patrols

a. You need some method of communicating with each vehicle and you must provide a means of rallying in case the patrol is dispersed. Within the patrol itself, use radios, voice commands, and visual signals.

b. Vehicular mounted radios are usually the best means to communicate with your commander.

c. Aircraft may be used to drop written messages, relay radio messages, and provide security for the patrol by visual reconnaissance.

### 189. Movement

A motorized patrol moves by one of three methods—

a. *Successive Bounds.* When moving by successive bounds, the vehicles in the patrol keep their relative places in the column. The two leading vehicles operate as a team in moving from one observation point to another (fig. 92). The second vehicle in the column is placed in a concealed position and the occupants dismount, if necessary, to cover the movement of the first vehicle to the next observation point. At this observation point, the occupants of the first vehicle dismount to observe and reconnoiter. When the commander of the first vehicle determines the area in his vicinity is

clear, he signals to the second vehicle. Upon receiving this signal, the men assigned to the second vehicle mount and move forward rapidly to join the first vehicle. The occupants of the second vehicle then cover the first vehicle during the next bound. The bound for the lead vehicle should not exceed the range for effective fire support. Before beginning the next bound, the occupants of the leading vehicle carefully observe the terrain to their front for signs of the enemy. The vehicle commander selects his next stopping place before beginning his bound. The leading vehicle and personnel may be replaced frequently. The rest of the vehicles in the column move by bounds from one covered and concealed position to another. Each vehicle normally maintains visual contact with the vehicle to its front. Vehicles avoid closing on the vehicle to their front.

*b. Alternate Bounds.* In moving by alternate bounds, all except the two lead vehicles keep their relative places in the column. The two leading vehicles alternate as the lead vehicle on each bound (fig. 92). This method provides a more rapid advance than moving by successive bounds; however, it does not allow the men in the second vehicle enough time to take a good look over the terrain to the front before they pass the first vehicle. The occupants of each lead vehicle cover the bound of the other vehicle as described above.

*c. Continuous Movement.* In continuous movement, all vehicles proceed along the route at a moderate rate of speed, moving rapidly but not sacrificing security. The leading vehicles stop to investigate only those areas that are particularly dangerous.

## 190. Security

Security is obtained by requiring each vehicle commander to assign each passenger a direction to observe. As each vehicle moves along the route, its occupants are responsible for observing to the front, flanks, and rear. This provides each vehicle with some security against surprise fire from every direction and provides visual contact with vehicles to the front and rear. For maximum observation, all canvas is removed from wheeled vehicles.

## 191. Actions at Danger Areas

*a.* Instruct the commander of the leading vehicle to notify you immediately when he encounters an obstacle or other danger area. When it is impossible to bypass an obstruction, approach it with caution. Normally, some of the men in the leading vehicle dismount to reconnoiter these places. These men are covered by the weapons in that vehicle.



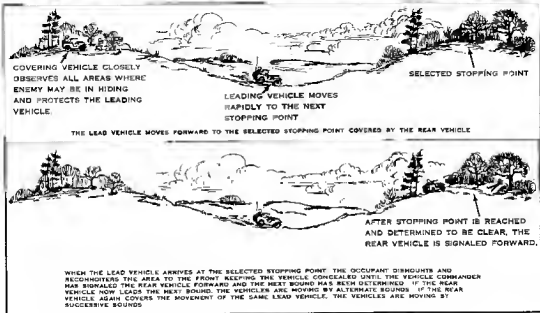


Figure 92. Leading vehicles moving by bounds.

b. For the security of the patrol, investigate side roads that intersect the route of advance. Secure the road junction with the men and automatic weapons from one vehicle; then send one or two vehicles down the side road to make the investigation. Decide the amount of reconnaissance to be conducted along these side roads according to your knowledge of the situation. Keep men who investigate side roads within supporting distance of the main body of the patrol.

c. Bridges, road junctions, defiles, and curves that deny observation beyond the turn are dangerous to your patrol. The men dismount and take advantage of all available cover and concealment to investigate the dangerous locality (fig. 93). The weapons

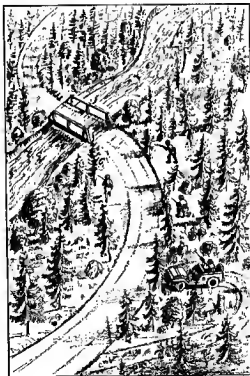


Figure 93. Patrols dismount to investigate dangerous areas.

from this vehicle cover the advance of the investigating personnel. The driver mans any vehicular-mounted weapon after moving his vehicle off the road into a covered and concealed position.

d. If the patrol approaches a village, you may send two or three men ahead on foot to reconnoiter. Place other men in covered and concealed positions to cover their movement.

e. Roadblocks usually are covered by antitank and automatic weapons. Antitank and antipersonnel mines may also be placed in their vicinity. Dismount the patrol and investigate roadblocks as you would any other dangerous area.

## 192. Actions on Enemy Contact

a. Your actions when you contact the enemy depend on your mission. You may not need to take offensive action. If the mission requires offensive action, you must be aggressive. For example, suppose the leading vehicle encounters a roadblock (fig. 94). The commander of the first or second vehicle immediately notifies you of the situation. The two vehicle commanders then dismount their men and place them in firing positions to return the enemy's fire.

b. Move forward to a covered position, dismount, and go forward on foot to make an estimate of the situation. Decide how you can use your force to quickly knock out the enemy. Instruct the assistant patrol leader to dismount and bring the remainder of the patrol forward. While the patrol prepares to attack, inform your commander of the situation.

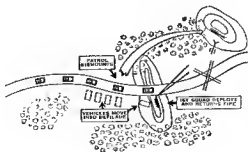


Figure 94. The patrol destroys the enemy defending a roadblock.

c. Leave at least one automatic weapon with the patrol's vehicles and have the drivers move their vehicles off the road. Drivers protect their vehicles with automatic weapons and individual arms. Include in your plans a means of protecting your flanks. When attacking the enemy, employ automatic weapons wherever possible. Upon capture or destruction of the enemy, notify your commander and proceed on the mission as soon as possible.

## CHAPTER 18

### AIRMOBILE AND WATERBORNE PATROLS

---

#### 193. General

a. Patrols may move to and return from an objective area by air or water. Patrols from airborne units may land by parachute and patrols from all units may land or return by plane, helicopter, boat, or submarine. Patrols may enter enemy areas by one means and return by another. For example, a patrol from an airborne unit may land by parachute and return by helicopter, or a patrol may reach the objective area by boat and return on foot.

b. Air or water transportation is arranged by your commander. You are responsible for detailed coordination.

c. Airmobile and waterborne patrols require more detailed planning and preparation than foot patrols. They usually require additional personnel and equipment.

#### 194. Airmobile Patrols

a. *Personnel.* If a patrol is landed by parachute, or if it is landed or returned by plane or helicopter an Army pathfinder team may be needed. If a pathfinder team is not available, soldiers trained in terminal guidance procedures may be needed. The need for these individuals varies with the enemy situation, light and weather conditions, landing sites used, type of aircraft, and personnel operating the aircraft.

b. *Equipment.* Signal lights, signal panels, electronic homing beacons, and radios may be needed to identify drop zones and landing sites and to guide aircraft to the proper location. This equipment is organic to Army pathfinder teams. If pathfinder teams are not used, your commander provides needed equipment.

c. *Organization of Movement.* When more than one aircraft is used, organize your patrol so that, as nearly as possible, each aircraft carries a balanced fighting team with the best capability for accomplishing the mission if one or more aircraft are lost. This is called "cross-loading" of personnel, weapons, and equipment.

d. *Reorganization After Landing.* You must select an assembly area near the drop zone or landing site. It must be easily recog-

nizable and readily available to all. The drop zone or landing site must be cleared quickly and reorganization for movement to the objective accomplished without delay.

*e. Navigation.* It is absolutely necessary that you know your exact location before beginning movement to the objective. A relatively slight error at this point can cause you to miss the objective and fail in the mission.

*f. Arranging for Pickup.* Arrangements must be made for pickup and return of the patrol.

- (1) You can meet the aircraft at a designated location at a specified time. This places a time restriction on you which may hamper your operations. The aircraft may be unable to land without pathfinder or terminal guidance assistance. If these individuals are with you and you are late, pickup may be missed. If they are sent ahead, you risk losing them to the enemy.
- (2) You may be able to call in the aircraft by visual signal such as smoke or flares. This might be used if the situation allows the aircraft to orbit within range of visual signals. Remember that visual signals may be seen by the enemy.
- (3) Generally, radio is the best means to call for aircraft. If based beyond the range of radios in the patrol, aircraft can orbit at relatively great distances and come in on call.

## 195. Waterborne Patrols

Waterborne patrols may move by sea, across lakes, or on rivers. The actual landing is usually by small boats, even though the initial move may be by ship or submarine.

*a. Personnel.* Additional personnel may be needed to assist in handling or operating boats, assist in navigation by preceding the patrol to shore and setting up signals, and in securing the landing site both upon arrival and departure.

*b. Equipment.* Signal devices may be needed just as in an airborne patrol. All individuals should have life preservers. When inflatable boats are used, repair kits must be included. Inflating equipment such as hand pumps or carbon dioxide cartridges may be desirable.

*c. Organization for Movement.* Cross-loading of personnel, weapons, and equipment is essential even when the overwater movement is short, as in moving from a submarine to shore. On

longer movements, such as on a lake or river, the possibility of losing equipment if a boat overturns is greatly increased.

*d. Reorganization after Landing.* Reorganization must be rapid. You are very vulnerable with a water obstacle behind you.

*e. Navigation.* This is important, just as in an airmobile patrol (par. 194).

*f. Arranging for Pickup.* Arrangements for pickup and return of the patrol, when applicable, are similar to aircraft pickup. Generally, you must return to the site at which you landed. It is seldom practical to carry small boats to the objective and to another location for pickup.

- (1) Generally, the most satisfactory method is to meet the ship or submarine at a specified time. A ship or submarine is not as restricted in lying offshore as an aircraft is in waiting at a landing site. This allows more flexibility in time schedules.
- (2) Visual signals, except for recognition, are more limited. Pickup is more practical at night than in day and visual signals such as flares are certain to attract enemy attention.
- (3) The slower arrival speed of ships and submarines reduces the value of radios as a means of calling for pickup.

## CHAPTER 19

### EMPLOYMENT OF SCOUT DOGS WITH PATROLS

---

#### Section I. GENERAL

#### 196. The Infantry Scout Dog Platoon

Scout dogs used in the Army today are found in infantry scout dog platoons (see FM 20-20). Elements of a platoon are attached to lower units for specific missions or periods. They usually are employed as scout dog teams, each team consisting of a scout dog and a handler.

#### 197. Mission

The mission of a scout dog team is to support you by detecting the enemy and giving silent warning. Teams may assist you on patrols, observation posts, outposts, and listening posts.

#### 198. Preparation and Planning for Use of Scout Dogs

a. When an infantry scout dog platoon is attached to an infantry unit, the platoon commander advises the commanding officer and makes recommendations for the employment of the platoon.

b. The platoon commander is briefed on planned missions as far in advance as possible. This allows him time to select the scout dog team which will be most effective for each mission. It also gives the handlers time to prepare themselves and their dogs.

c. When scout teams are employed with units that have not previously used them, personnel are carefully oriented on the scout dog team's capabilities and limitations.

d. The presence of a scout dog team causes varied reactions among personnel unfamiliar with scout dogs. Some men may feel an exaggerated sense of security while others may become agitated and apprehensive. Prevent these extremes by having the handler brief the patrol on the team's purpose, capabilities, limitations, and method of operation.

e. A scout dog team usually is attached to a small unit such as a patrol for a particular mission. When possible, the same team works with the same unit or patrol for different missions. Performance improves as the team becomes familiar with the personnel.



## 199. Limitations of Scout Dog Teams

a. Alertness must still be maintained when a scout dog team accompanies a patrol. The team can almost always detect the enemy before you, but both handler and dog have limitations.

- (1) A scout dog has an acute sense of smell, keen hearing, and eyes that are unusually sensitive to movement. The dog's use of these faculties is affected by weather and terrain conditions such as rain, smoke, fog, dust, heavy underbrush, and thick woods. His effectiveness is reduced in areas of much noise and movement.
- (2) A scout dog must be retrained periodically. The longer he goes without retraining, the less effectively he performs.
- (3) A dog is subject to the elements the same as a human. He tends to be less alert when extremely cold or when overheated.
- (4) The handler must concentrate on "reading" his dog. This is difficult to do for extended periods. Take two scout dog teams on long patrols and alternate them for best results.

b. Despite limitations, a scout dog team is a very valuable aid. Consider the team's limitations, but capitalize on its strengths.

## Section II. USING SCOUT DOGS WITH PATROLS

### 200. Preparation

a. The scout dog team joins the patrol in time to hear the warning order and participates in all phases of planning, preparation, and execution. The handler attends the debriefing.

b. The handler will give his recommendations for employment of the team. Your plan for employment is included in your patrol leader's order.

c. Rehearsals assist in completely integrating the scout dog team into the patrol. The patrol members become familiar with the team's method of operation. The dog becomes familiar with the scents of individual patrol members and with the noises and motions of the patrol on the move.

### 201. During Movement

a. Generally, the best position for the scout dog team is directly in front of the patrol. The team precedes the patrol, keeping generally on the assigned direction of movement. Wind conditions may dictate that the team move on the windward side of the



*Figure 85. The dog is scout-familiarized with all members of the patrol.*



*Figure 86. The scout dog team is placed on the windward side of the patrol.*

route of advance to take maximum advantage of the dog's senses of smell and hearing.

b. The distances at which the team detects the enemy depend on wind direction and speed, weather conditions, and terrain. No average can be stated, but reliability is very high at 300 meters. Favorable conditions permit detection at far greater distances. Adverse conditions, such as wind from the rear, reduce the effective distance.

c. If the wind is blowing from either side rather than directly from the enemy, the process of detection may take longer since traversing may be necessary. In some situations, this traversing can be done by the team while the patrol continues on a direct route.

d. When the handler signals that the dog has detected the enemy, halt the patrol immediately and approach the handler on the side *opposite the dog* so the dog will not be distracted. From the nature of the dog's alert, the handler can tell you the approximate direction, distance, and location of the enemy. The information "read" by the handler is more exact as the team moves closer to the enemy.

e. If it is not practicable for you to reconnoiter the position, the scout dog team can do this and report to you. In such a situation, you must provide security for the team.

## 202. At The Objective

a. The scout dog team is especially valuable in the objective area. The team can locate entries, determine the extent of positions, and pinpoint specific positions. When the mission is reconnaissance, and near approach of the patrol is not practicable, the team may be able to reconnoiter the objective and secure the needed information. When the mission is combat, information obtained by the team may allow you to position your patrol without being detected before you are ready to attack.

b. The scout dog team does not participate in combat actions at the objective. During this action, the team is positioned to the rear or to a flank where it can provide security and be prepared to assist the patrol on the return route.

## 203. Protection of The Scout Dog Team

The scout dog works on a leash in front of the handler. When working, the dog requires the handler's full attention; therefore, he cannot work the dog effectively and use his individual weapon

at the same time. You must assign a patrol member to accompany and protect the team at all times.

#### 204. Action if The Handler Becomes A Casualty

a. If the handler becomes a casualty, he is treated according to the patrol's casualty plan. If he is left for later evacuation, the dog is left with him. If the handler is taken with the patrol, the dog usually will follow. If the dog does not follow, assign a patrol member to lead him by the leash.

b. Occasionally, a dog may adopt a protective attitude and refuse to allow anyone to approach if the handler is unconscious or otherwise unable to control him. If the tactical situation permits, make every effort to lure or force the dog away so proper treatment can be given. If the situation does not permit time to be spent in this manner, or if the efforts fail, *destroy the dog*. The dog will not be destroyed however, *if the handler is known to be dead*. In such a case, both dog and body will be left and recovered by personnel of the infantry scout dog platoon.

#### 205. Proper Use of The Scout Dog Team

The effectiveness of the scout dog team depends on you, the patrol leader. You must give the handler freedom to employ his dog to best advantage. Whenever possible, let the handler select the team's position in the patrol formation. Heed his advice and get the most the team has to offer.

## APPENDIX I

### REFERENCES

---

- AR 320-5 Dictionary of United States Army Terms.  
AR 320-50 Authorized Abbreviations and Brevity Codes.  
AR 385-63 Regulations for Firing Ammunition for Training, Target Practice, and Combat.
- FM 5-15 Field Fortification.  
FM 5-20 Camouflage, Basic Principles and Field Camouflage.
- FM 5-25 Explosives and Demolitions.  
FM 5-31 Use and Installation of Boobytraps.  
FM 5-36 Route Reconnaissance and Classification.  
FM 6-40 Field Artillery Cannon Gunnery.  
FM 6-115 The Field Artillery Searchlight Battery.  
FM 7-10 Rifle Company, Infantry and Airborne Division Battle Groups.
- FM 7-11 Infantry, Airborne Infantry, and Mechanized Infantry Rifle Company.  
FM 7-15 Infantry, Airborne Infantry, and Mechanized Infantry Rifle Platoon and Squad.  
FM 7-20 Infantry, Airborne Infantry, and Mechanized Infantry Battalions.  
FM 7-24 Communication in Infantry and Airborne Divisions.
- FM 17-1 Armor Operations; Small Units.  
FM 17-35 Armored Cavalry Platoon, Troop, and Squadron.  
FM 20-20 Military Dog Training and Employment.  
FM 20-32 Land Mine Warfare.  
FM 21-5 Military Training.  
FM 21-6 Techniques of Military Instruction.  
FM 21-10 Military Sanitation.  
FM 21-11 First Aid for Soldiers.  
FM 21-26 Map Reading.  
FM 21-30 Military Symbols.  
FM 21-40 Small Unit Procedures in Nuclear, Biological, and Chemical Warfare.  
FM 21-41 Soldier's Handbook for Nuclear, Biological, and Chemical Warfare.

FM 21-48	Chemical, Biological, and Nuclear Warfare Training Exercises and Integrated Training.
FM 21-50	Ranger Training.
FM 21-60	Visual Signals.
FM 21-76	Survival.
FM 21-77	Evasion and Escape.
FM 21-77A	Evasion and Escape. (U)
FM 21-150	Hand-to-Hand Combat.
FM 23-5	U.S. Rifle, Caliber .30, M1.
FM 23-7	Carbine, Caliber .30, M1, M1A1, M2, and M3.
FM 23-8	U.S. Rifle, Caliber 7.62-MM, M14.
FM 23-26	Bayonet.
FM 23-30	Grenades and Pyrotechnics.
FM 23-55	Browning Machinegun, Caliber .30, M1917A1, M1919A4, M1919A4E1, M1919A6, and M37.
FM 23-67	Machnegun, 7.62-MM, M60.
FM 27-10	The Law of Land Warfare.
FM 30-7	Combat Intelligence; Battle Group, Combat Command, and Smaller Units.
FM 30-101	The Manuever Enemy.
FM 30-102	Handbook on Aggressor Military Forces.
FM 30-103	Aggressor Order of Battle.
FM 31-15	Operations Against Irregular Forces.
FM 31-50	Combat in Fortified Areas and Towns.
DA Pam 21-81	Individual Training in Collecting and Reporting Military Information.
ASubjScd 21-21	Land Navigation.
DA TC 7-3	Functioning and Employment, Antipersonnel Weapon (Claymore) M18 and M18A1.

## APPENDIX II

### EXERCISES FOR TRAINING IN NIGHT VISION

---

#### 1. Equipment and Conduct

a. To conduct night vision exercises indoors, the instructor uses the following equipment: a room which can be completely blacked out, white screens (1.5 meters high) placed at opposite sides of the room with bases two meters from the floor, shadowgraphs suspended from the ceiling four meters apart and three meters from the screens, charts of the light spectrum at intervals of four meters along the walls above the screens, and red lights suspended from the ceiling above each spectrum chart.

b. The shadowgraph (fig. 97) places images of objects on a screen as they appear in natural darkness; therefore, it provides an excellent training aid for instruction in night vision.

c. A shadowgraph can be built from a box 30 by 30 by 24 centimeters. Within the box are the following: a small 110-volt bulb, an electric clock motor, and an arm with airplane silhouette on each end fastened to the clock motor. The clock motor causes a rotating airplane silhouette to be cast on the screen every 30 seconds. A cutout with silhouettes of various objects is placed on the front box, reproducing the objects on the white screen on the wall. The light source line should include a rheostat wired in series so equal illumination of all screens is achieved.

d. A field expedient shadowgraph may be constructed when equipment is not accessible for a more elaborate one (fig. 98). An ammunition box or something similar may be used. The top and one side of the box is removed and silhouettes cut from heavy paper are placed over the open side. A light source of a modified flashlight is used to project the silhouettes on a screen.

e. For conducting the exercises outdoors, the instructor uses natural terrain features, manmade objects, and individuals. The shadowgraphs and screens should not be used outdoors.

#### 2. Training

a. Training in night vision can be conducted indoors or outdoors, but it is better to teach the subject indoors first and to teach all aspects of it in one period.

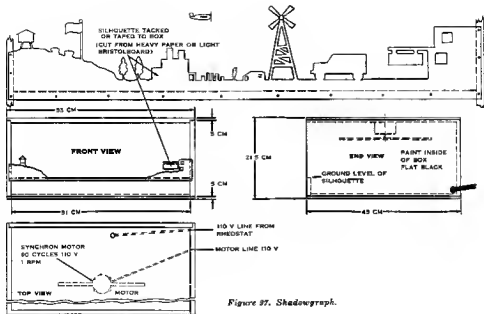


Figure 97. Shadowgraph.



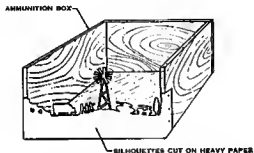
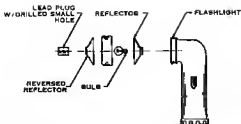


Figure 88. Field expedient shadowgraph.

b. The procedure for outdoor training is the same as for indoor training. However, the light intensity should be equal to that of a brilliant half-moon. If the light is too dim, little can be seen; if it is too bright, the training is of little value.

### 3. Exercises

#### a. Indoors.

- (1) The class is seated before the room is blacked out, and night vision is explained. The room is then blacked out and the shadowgraph is turned on. The instructor continues to question the class to determine the rapidity of dark-adaptation among its members. He has the students look at a point where the floor meets the wall and then has them move their eyes up the wall and back down again in short abrupt movements. This is scanning and helps the students to locate the screen. After they see the screen, the instructor directs the class to look first toward one side of the screen and then the other, glancing out of

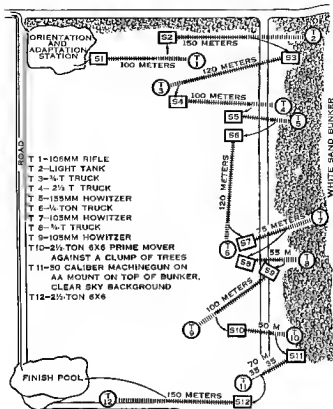


Figure 33. Layout of outdoor night vision training course.

the corners of their eyes. This is off-center vision. They continue to shift their eyes in this manner until their angle of off-center vision is established. The instructor continues the practice of off-center vision and scanning until the students have developed confidence. Many men see the images, but do not believe such images are actually present until their confidence is developed.

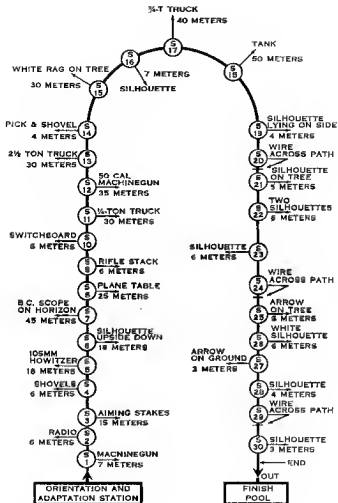


Figure 100. Layout of alternate outdoor night vision training course.

- (2) When all students' eyes have become dark-adapted, red lights are turned on and the color spectrum is pointed out to them. Their attention is directed to the apparent loss of several colors and the fact that the other colors appear as various shades of black or gray. Red lights are then turned off to demonstrate that night vision has been retained. The instructor then has the students cover one eye, and turns on an ordinary white light. Students destroy the night vision of the open eye by looking directly at the light for about a minute. The students are again shown the color spectrum, and it is pointed out that the colors which had apparently disappeared under the red light, all had pigments of red in them. This demonstrates that red colors cannot readily be seen under red light. After about 2 minutes in normal light, the classroom is darkened. The students keep one eye closed and see that dark-adaptation had been preserved by keeping one eye dark-adapted. When the students open both eyes, the eye not dark-adapted will feel as though a heavy weight is pulling it down. This is because the eye is attempting to adjust to the same degree as the dark-adapted eye.

*b. Outdoors.* The procedure is the same as indoors except available natural terrain features, manmade objects, and demonstrators are used. Outdoors, the students also observe through binoculars, noting the improvement in vision over the naked eye. See figures 99 and 100 for two outdoor layouts which can be used as guides.

## APPENDIX III

### PATROL TIPS

---

#### Section I. PREPARATION

1. Make a detailed map study; know the terrain in your objective area; on short patrols, memorize your route; for long patrols, select terrain features to help you keep oriented. A piece of acetate over luminous tape can be used to make a rough sketch or strip map. The sketch map will glow in the dark and make the use of lights unnecessary. Use a grease pencil so marks can be easily erased.

2. Consider the use of difficult terrain in planning your route. Impassable terrain is very rare.

3. Plan an "offset" in your route when applicable. An offset is a planned magnetic deviation to the right or left of the straight line azimuth to an objective. Use it to verify your location right or left of the objective. Each degree you offset will move you about 17 meters to the right or left for each 1000 meters you travel.

4. When your patrol is to infiltrate the enemy area, select an alternate rendezvous point for use if the first point cannot be used.

5. Consider all types of grenades, fragmentation, white phosphorus, concussion, and smoke, together with the use of the grenade launcher.

6. Reconnaissance patrols should carry at least one automatic weapon. It provides valuable sustained firepower.

7. Avoid taking weapons requiring different types of ammunition. It makes ammunition redistribution difficult.

8. Clean, check, and test fire all weapons before departure.

9. Carry gloves to protect hands.

10. Carry at least two flashlights and two each of such critical items as binoculars, wire cutters, and fuze crimpers.

11. Carry extra flashlight and radio batteries on long patrols.

12. Every man should carry his canteen and poncho. Consider having each man carry two canteens on long patrols. If special circumstances make it undesirable for every man to carry his canteen and poncho, carry at least two of each in the patrol.

13. Ponchos can be used to make litters, construct rafts, conceal lights, and as shelters.

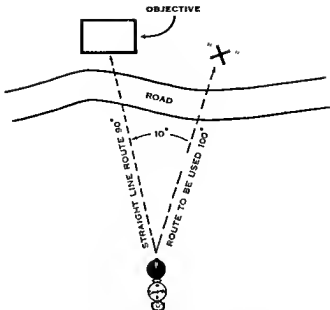


Figure 101. Use of offset. Remember the distance from "X" to the objective will vary directly with the distance to be traveled and the number of degrees offset.

14. Have every man carry an extra pair of socks.
15. Harness should be worn when the web belt is worn.
16. Carry individual weapons cleaning equipment on all patrols.
17. Consider the use of scout dogs, if available.
18. A length of rope secured to the harness can be used for binding prisoners, climbing or descending obstacles, and crossing streams.
19. Two pieces of luminous tape, each about the size of a lieutenant's bar, worn on the back of the collar aid in control and movement on dark nights. Turn the collar down when near the enemy. The tape also can be worn on the back of the cap, but cover or remove it when near the enemy.
20. Use friction tape to secure rifle swivels, sling, and other items which might rattle.

21. Be sure to camouflage the back of your neck, behind your ears, and the backs of your hands.

22. Provide for security by assigning every man an area of responsibility.

23. Designate at least two pacers and use the average of their individual counts.

24. Fold maps before departing so they can be more easily handled when checking.

25. Preset compasses before departing. Preset more than one compass for each setting required.

26. Prepare a list of questions or a checklist to be used at friendly positions with which you will coordinate.

27. When appropriate to the mission, arrange to have a light aircraft reconnoiter ahead of your patrol to keep you informed of any enemy activity or ambushes along your route.

28. Take your subordinate leaders with you on reconnaissance if possible.

29. Prearrange and rehearse all signals to be used. Keep signals simple.

30. Plan time for your patrol members to dark-adapt their eyes if you have a night patrol.

31. Use available visual aids in issuing your patrol leader's order. The use of a blanket board, blackboard, or a sketch on the ground is helpful.

32. Do not carry maps marked with information that might aid the enemy.

33. Conduct rehearsals on terrain similar to that over which you will operate. Conduct day and night rehearsals for a night patrol.

34. Inspect your patrol carefully before rehearsals and before departure. Question men to check their knowledge and understanding of the actions planned.

## Section II. EXECUTION

35. On small patrols, the count should be sent up automatically after each halt or passage of a danger area. In large patrols, use the chain of command to account for men.

36. Use the point for security and not for navigation.

37. Check navigation frequently. You are responsible.

38. On long patrols, change point and compass men occasionally.

39. Use an alternate challenge and password outside friendly areas.

40. In mountainous terrain, use ridgelines for movement whenever possible, but do not move along ridgetops. Stay off the skyline.

41. Weapons are always carried at a ready position.

42. Cut enemy wire only when necessary. Make a reconnaissance first.

43. When moving at night, take advantage of any noises such as wind, vehicles, planes, battle sounds, and even sounds caused by insects.

44. Do not move on roads and trails unless absolutely necessary.

45. Aid movement in daylight, especially in dense terrain, by using night compass settings.

46. Avoid lateral movement across the forward position of the enemy area.

47. Over short distances such as the width of a road, the compass can be used for signaling at night. A piece of luminous tape can also be used.

48. Crossing roads in enemy territory is a matter of common sense. Each situation may dictate a different method. You will not violate established procedures if you properly reconnoiter before crossing the road. Establish adequate security and move silently and quickly to avoid detection. A main point of consideration in any road crossing is control of your unit. Some of the accepted methods for crossing roads are:

a. Patrol can form a skirmish line and move quickly and quietly across the road.

b. The entire patrol can form a file, following the footsteps of the man in front in order to minimize footprints.

c. Men cross the road a few at a time until patrol is across.

49. Crossing streams is similar to crossing roads; reconnaissance and security are necessary.

50. When it is necessary to leave a wounded man to be picked up on your return trip, leave another man with him if possible. Walking wounded return on their own to friendly areas if possible. When near the enemy, remove the wounded from the immediate area before applying first aid.

51. Avoid all human habitations.

52. Bypass enemy positions or obstacles by offsetting around them. Stay oriented by moving at right angles for specified distances. For example, you are moving on an azimuth of 360° and wish to bypass an obstacle or position. Change direction to 90° and move for 100 meters, change direction back to 360° and move for 100 meters, change direction to 270° and move for 100 meters,



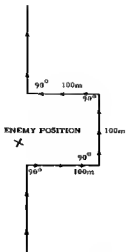


Figure 102. Effect around enemy positions or obstacles.

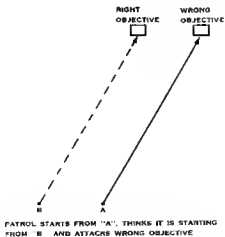


Figure 103. Effect of an error in reaching the objective.

then change direction to 360° and you are back on your original route.

53. Break contact with the enemy by the "clock system," by fire and movement, or by a combination of both.

54. Know your location at all times. This is particularly important when you change direction and when you land on an air-mobile or waterborne patrol. A relatively slight error can cause you to miss your objective.

### Section III. MISCELLANEOUS

55. Keep the cutting edge of the entrenching tool extremely sharp. It is a good silent weapon and can be used in lieu of a machete.

56. A garrote can be used for killing a enemy or capturing a prisoner.

57. Do not jeopardize security by letting ear flaps and hoods interfere with the hearing ability of the patrol.

58. Keep talking to a minimum. Use arm-and-hand signals to the maximum.

59. When reconnoitering enemy positions, keep a covering force within supporting distance of the reconnaissance element.

60. Never throw trash on ground while on patrol. Bury and camouflage it to prevent detection by the enemy.

61. When contacting friendly agents such as partisans, never take the entire patrol to make contact with them. Have one man make the contact and cover him.

62. Dark, rainy, windy nights are best for patrols.

# INDEX

	Paragraphs	Page
A patrol, why organized.....	120	125
A team effort, patrolling.....	119	124
Action if handler becomes a casualty.....	204	196
Action of command and staff.....	118	120
Actions at danger areas.....	143, 191	150, 184
Actions at the objective.....	144, 158, 151, 162, 168, 173	168, 172
Actions on enemy contact.....	142, 192	148, 187
Actions under fires.....	27	39
Active protective measures.....	37, 38	49
Airmobile and waterborne patrols:		
Airmobile patrols.....	194	180
General.....	193	180
Waterborne patrols.....	195	190
Ambush patrols:		
Equipment.....	181	177
Execution.....	183	177
Factors for successful ambush.....	179	176
Missions.....	176	176
Preparation.....	182	177
Purposes.....	177	178
Size and organization.....	180	175
Types.....	178	178
Antiguerrilla operations:		
A patrol.....	111	117
Characteristics of guerrilla operations.....	107	112
Explanation.....	116	118
General.....	106	112
Tactical operations against guerrilla operations.....	109	114
Your role.....	108	113
Assembly area, clandestine.....	150	157
At the objective, use of scout dogs.....	202	198
Body care.....	45	71
Body cleanliness.....	46	74
Briefing of messengers.....	48	76
Camouflage.....	9	9
Care of your weapon.....	10	13
Challenge and password.....	18	20
Characteristics of guerrilla operations.....	107	112
Combat intelligence and counterintelligence:		
Definitions.....	51	77
Importance.....	52	78
Production.....	56	80
Reports.....	55	79

## Combat intelligence and counterintelligence—Continued

Sources .....	51	78
Types .....	53	78
Combat patrols .....	123	126
Conduct .....	143	167
Equipment .....	142	166
Missions .....	140	166
Organization .....	141	166
Purpose .....	159	166
Special organization .....	125	127
Combat training:		
Phases .....	5	5
Purpose .....	4	5
Combat training of the individual soldier:		
Job .....	2	3
Purpose and scope .....	1	3
Training .....	3	4
Command and staff action .....	118	120
Commander's patrolling responsibilities .....	117	120
Complete detailed plans .....	135	186
Concealing yourself .....	7	6
Conduct of patrols:		
Actions at danger areas .....	143	160
Actions at the objective .....	144	161
Actions on enemy contact .....	142	148
Clandestine assembly areas .....	150	167
Control .....	145	161
Departure and reentry of friendly areas .....	140	148
Formation and order of movement .....	139	142
General .....	138	142
Infiltration .....	149	166
Navigation .....	146	163
Rallying points .....	141	144
Reporting .....	151	160
Security .....	147	154
Use of radios .....	148	166
Conduct of reconnaissance patrols .....	157	162
Conduct of survival, evasion, and escape .....	88	100
Contaminated areas, nuclear .....	80	97
Contaminated equipment, nuclear .....	81	97
Control of motorized patrol .....	188	183
Coordinate .....	181	132
Counterintelligence, your role .....	57	81
Cover and concealment .....	6	5
Day and night combat:		
Challenges .....	9	9
Care of your weapon .....	10	13
Challenge and password .....	18	20
Concealing yourself .....	7	6
Cover and concealment .....	6	5
Estimating distance .....	13	16
Movement .....	21	22
Navigation .....	15	17

	Chapters	Page
<b>Day and night combat—Continued</b>		
Observation and listening posts .....	14	16
Reporting information .....	19	21
Selecting and following routes .....	16	18
Silent weapons .....	20	22
Sounds and smells .....	12	13
Temporary battlefield positions .....	8	8
Using your weapon .....	11	11
What to do if lost .....	17	19
Day and night eyes .....	32	35
<b>Day combat:</b>		
Finding direction .....	22	25
Searching terrain .....	23	26
Defense against CBR attack .....	41	65
Definitions of combat intelligence and counterintelligence .....	51	77
Departure and reentry of friendly areas .....	140	143
Documents .....	59	83
Double messengers .....	97	80
During movement, use of scout dogs .....	201	165
<b>Economy of force patrols:</b>		
General .....	174	172
Missions .....	175	172
Effects of nuclear explosions .....	71	90
<b>Employment of scout dogs with patrols:</b>		
Infantry scout dog platoon .....	196	194
Limitations .....	191	192
Mission .....	191	192
Preparation and planning for use .....	198	192
Employment of snipers .....	51	169
Enemy propaganda .....	42	68
<b>Equipment:</b>		
Ambush patrols .....	181	177
Combat patrols .....	162	166
Messengers .....	65	86
Motorized patrols .....	187	182
Reconnaissance patrols .....	155	162
Security patrols .....	169	170
Sniper .....	53	163
Escape .....	87	80
Estimating distance .....	13	16
Evasion .....	86	90
Execution of an ambush patrol .....	182	177
Explanation of antiguerrilla operations .....	116	118
<b>Factors affecting night vision</b> .....		
Factors for successful ambush .....	179	175
Fighting emplacements .....	10	51
Finding direction .....	22, 25	25, 38
Firing .....	23	41
Food sources .....	47	75
Formation and order of movement .....	139	112
Friendly nuclear weapons .....	78	97
General and special organization of motorized patrols .....	166	182

	Paragraphs	Page
<b>Health and hygiene in combat:</b>		
Body care .....	45	71
Body cleanliness .....	46	74
Food sources .....	47	75
Mental attitude .....	43	69
Physical efficiency and resistance to disease .....	44	71
Replenishing salt and fluids .....	49	76
Waste disposal .....	50	100
Water conservation and purification .....	48	76
How to deliver an oral message .....	70	87
<b>Individual protection:</b>		
Active measures:		
Active individual and unit .....	38	49
Take active measures .....	87	49
Passive measures:		
Defense against CBR attack .....	41	65
Enemy propaganda .....	42	68
Fighting emplacements .....	40	53
What you must do .....	39	52
Importance of combat intelligence and counterintelligence .....	62	78
Importance of messengers .....	64	86
Importance of patrolling .....	112	117
Infantry scout dog platoon .....	106	192
Infiltration .....	149	156
<b>Infrared equipment:</b>		
Employment .....	105	100
Metascopes .....	98	104
Operation and maintenance .....	104	109
Safety precautions .....	100	105
Sniperscopes .....	101	108
Use of metascopes .....	99	104
Uses of sight .....	103	108
Weapons sight .....	102	108
Inspect and rehearse .....	137	138
Issue a warning order .....	130	131
Issue patrol leader's order .....	136	138
Leadership, nuclear survival .....	78	97
Limitations of scout dog teams .....	199	192
Long-range patrols .....	116	118
Make a map study .....	130	131
Make reconnaissance .....	134	135
Material .....	59	87
Mental attitude .....	43	60
<b>Messages and messengers:</b>		
Double messengers .....	67	86
Equipment .....	65	86
How to deliver an oral message .....	70	87
Messages .....	62	84
Messenger briefing .....	68	86
Preparing a written message .....	63	84
Select route with care .....	71	89
Training .....	64	86

	Paragraphs	Page
<b>Messages and messengers—Continued</b>		
What to do when carrying messages.....	69	87
Why messengers are important.....	64	86
Metascope .....	98	101
<b>Mission.</b>		
Ambush patrol.....	176	176
Combat patrol .....	160	166
Economy of force patrol.....	175	172
Receipt .....	127	131
Reconnaissance patrol.....	153	161
Scout dogs .....	197	192
Sniper.....	91	102
<b>Motorized patrols:</b>		
Actions at danger areas.....	191	184
Actions on enemy contact.....	192	187
Control.....	188	183
Equipment.....	187	182
General and special organization.....	185	182
Movement.....	189	183
Preparation.....	186	182
Purpose.....	184	182
Security.....	180	184
Nature of nuclear explosions .....	73	90
Navigation.....	15, 146	17, 153
<b>Night combat:</b>		
Action under flames .....	27	30
Finding direction.....	25	38
Firing.....	29	44
Movement.....	21	30
Passing obstacles.....	28	40
Security.....	26	30
<b>Night vision:</b>		
Confidence .....	30	48
Day and night eyes .....	32	45
Factors affecting night vision .....	34	47
Preserving night vision.....	35	48
Seeing at night .....	33	46
You can see at night .....	30	41
Your eyes are like a camera.....	31	44
Nuclear battlefield survival.....	72-81	90
Nuclear contaminated areas.....	80	97
Nuclear contaminated equipment.....	81	97
Nuclear protective measures .....	77	92
Observation and listening posts.....	14	16
Operation and maintenance of infrared weapon sight.....	104	109
Organization of combat patrol.....	161	166
Organization of a reconnaissance patrol.....	155	161
Organizing a patrol.....	121	125
Summary .....	126	129
Passing obstacles.....	28	40
Passive protective measures.....	39-42	52

	Paragraphs	Page
Patrolling:		
A patrol .....	111	117
Importance .....	112	117
Purpose and scope .....	110	117
Training .....	113	117
Types of patrols .....	114	117
Patrolling is a team action .....	119	124
Patrol formation and order of movement .....	139	142
Patrols and missions of snipers .....	97	104
Patrols:		
Combat .....	123	126
Reconnaissance .....	122	126
Phases of combat training .....	6	8
Physical efficiency .....	4	44
Planning steps:		
Complete detailed plans .....	136	136
Coordinate .....	131	132
Inspect and rehearse .....	137	138
Issue a warning order .....	133	134
Issue patrol leader's order .....	138	138
Make a map study .....	130	131
Make reconnaissance .....	134	138
Select men, weapons, equipment .....	132	134
Study the situation .....	129	131
Use of time .....	128	131
Post selection, sniper .....	95	103
Post use, sniper .....	90	104
Preparation:		
Ambush patrols .....	182	177
Motorized patrols .....	186	182
Planning for use of scout dogs .....	198	182
Use of scout dog teams .....	200	193
Preparing a written message .....	83	84
Preserving night vision .....	35	48
Prisoners of war, documents, and material .....	58-61	81-83
Documents .....	69	83
Material .....	60	83
Ownership .....	81	83
Prisoners .....	58	81
Problems of survival, evasion, and escape .....	63	98
Production of combat intelligence .....	80	80
Proper use of scout dog teams .....	205	196
Protection of the scout dog team .....	203	195
Protective measures, nuclear .....	77	92
Purpose:		
Scope .....	1, 110	3, 117
Ambush patrols .....	177	176
Combat patrols .....	159	166
Combat training .....	4	5
Motorized patrols .....	184	182
Raid patrols:		
Actions at objective .....	166	168
General .....	164	167



	Paragraphs	Page
Raid patrols—Continued		
Special organization.....	165	167
Rallying points.....	141	144
Receive the mission.....	127	131
Reconnaissance patrols.....	122	125
Special organization.....	124	126
Replenishing salt and fluids.....	49	76
Reporting.....	151	160
Reporting information.....	19	21
Reports of combat intelligence and counterintelligence.....	55	79
Resistance to disease.....	44	71
Responsibilities of commander.....	117	120
Searching terrain.....	23	36
Security.....	26, 147	39, 154
Security of motorized patrols.....	190	184
Security patrols:		
Actions at objective.....	170	170
Equipment.....	169	170
General.....	167	170
Special organization.....	168	170
Seeing at night.....	33	48
Select men, weapons, equipment.....	132	134
Select messenger routes with care.....	71	89
Selecting and following routes.....	18	18
Silent weapons.....	20	22
Size and organization of ambush patrols.....	180	175
Sniper and infrared equipment:		
Employment.....	94, 105	103, 109
Equipment.....	93	103
Infrared weapon sight.....	102	108
Metascope.....	98	104
Mission.....	91	102
Operation and maintenance.....	104	109
Post use.....	98	104
Safety precautions.....	100	105
Selection and training.....	92	102
Selection of posts.....	95	103
Sniper.....	90	102
Sniperscope.....	101	108
Use of metascope.....	99	104
Uses of night.....	103	108
With patrols and on missions.....	97	104
Sounds and smells.....	12	13
Sources of combat intelligence and counterintelligence.....	64	78
Special organization:		
Combat patrols.....	125	127
Raid patrols.....	165	167
Reconnaissance patrols.....	124	126
Security patrols.....	168	170
Staff and command actions.....	108	113
Steps in organizing a patrol.....	121	125
Study the situation.....	120	131

	Paragraphs	Page
Survival, evasion, and escape:		
Conduct.....	88	100
Escape.....	87	99
Evasion.....	86	99
Explanation of terms.....	84	98
General.....	82	98
Need all training.....	89	100
Problems.....	83	98
Survival.....	85	98
Survival on nuclear battlefield:		
Contaminated areas.....	80	97
Contaminated equipment.....	81	97
Effects of nuclear explosion.....	74	90
Friendly nuclear weapons.....	79	97
General.....	72	90
Leadership.....	78	97
Nature of nuclear explosions.....	73	90
Protective measures.....	77	92
Types of bursts.....	75	91
Types of injuries.....	78	91
Tactical operations against the guerrilla.....	109	114
Temporary battlefield positions.....	8	8
Training in patrolling.....	118	117
Training of a sniper.....	92	102
Training of messengers.....	66	88
Types of combat intelligence and counterintelligence.....	63	78
Types of nuclear bursts.....	73	91
Types of nuclear injuries.....	76	91
Types of patrols.....	114	117
Types of reconnaissance.....	134	161
Use of infrared equipment.....	99	104
Use of long-range patrols.....	115	118
Use of radios.....	148	155
Use of time planning.....	128	131
Using scout dog teams with patrols:		
Action if handler becomes a casualty.....	204	196
At the objective.....	202	195
During movement.....	201	193
Preparation.....	200	193
Proper use of team.....	205	196
Protection of the team.....	203	196
Using your weapon.....	11	13
Waste disposal.....	50	76
Waterborne and airmobile patrols:		
Airmobile patrols.....	194	189
General.....	193	189
Waterborne patrols.....	195	190
Water conservation and purification.....	48	76
What to do if lost.....	17	19
What to do when carrying messages.....	69	87
Why is a patrol organized.....	120	125
Why messengers are important.....	64	86

	Paragraphs	Page
You can see at night.....	30	44
You need all other training.....	89	100
Your eyes are like a camera.....	31	44
Your job as a soldier.....	2	3
Your part in antiguerrilla operations.....	108	113
Your role in counterintelligence.....	67	81
Your training as a soldier.....	3	4

BY ORDER OF THE SECRETARY OF THE ARMY:

G. H. DECKER,  
*General, United States Army,*  
*Chief of Staff.*

Official:

J. C. LAMBERT,  
*Major General, United States Army,*  
*The Adjutant General.*

Distribution:

*Active Army:*

DCSPER (2)	Br Svc Sch (5) except
ACSI (2)	USAARMS (500)
DCSLOG (2)	USAIS (4,257)
DCSOPS (2)	USAES (10)
ACSRC (2)	MFSS (20)
CRD (1)	PMGS (50)
COA (1)	USABCS (10)
GINFO (1)	USATSC (865)
TIG (1)	USAAVNS (13)
TJAG (1)	US ARADSC (50)
TPMG (1)	LOGCOM (11)
TSG (1)	JWTC (200)
CofOrd (1)	Armies (5)
CofEngrs (1)	Corps (3)
TQMG (1)	Div (2)
CofT (1)	Bde (1)
CSigO (1)	Regt (1)
CCmIO (1)	Gp (1)
ARADCOM (2)	Inf BG (4)
ARADCOM Rgn (1)	Abn BG (1)
MDW (5)	Bn/Sqd (1)
USCONARC (5)	Co/Rtry/Trp (5)
USAIC (3)	Trg Comds (25)
USA Cold Weather & Mt Sch (3)	Instl (1)
USASWS (185)	Units org; under fol TOE: 17-22 (1)

NG: Corp Arty, Div, Div Arty, Div Trains, Rde, Gp, BG, Regt, Rn, Co, Btry, Trp, TOE Unit 17-22 (3)

USAR: Same as active army except allowance is one copy to each unit.  
For explanation of abbreviations used, see AR 320 50.